




Training Gaps
Analysis



Interactive Media
Producers



CHRC
Cultural
Human Resources
Council



CRHSC
Conseil
des ressources humaines
du secteur culturel

**Cultural Human Resources Council (CHRC)
Interactive Media Producers
Training Gaps Analysis
February 24, 2009**

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Introduction

In October 2008, the Cultural Human Resources Council (CHRC) issued a Request for Proposals to undertake a Training Gaps Analysis for Interactive Media Producers (“the RFP”). Having recent research experience for the CHRC (in analyses of training gaps for film and television directors, presenters, music publishers, automation technicians, record label managers, stage technicians and entertainment riggers), **kisquared** was chosen by the CHRC Selection Committee to undertake the current study.

The Training Gaps Analysis for interactive media producers builds on earlier work by the Interactive Media Producers’ Expert Working Group (EWG), who compiled a matrix of core competencies that define interactive media producers’ skill sets. The primary data-gathering instrument was a telephone survey, based on that core competencies matrix, of interactive media producers across Canada. Interviews were conducted in French and English from **kisquared**’s offices in Winnipeg, Manitoba. Additional interviews were undertaken with various training institutions (e.g., colleges and universities) that offer training for interactive media producers.

This study proceeded with generous assistance from the CHRC staff (Geneviève Chassé, Project Manager, and Susan Annis, Executive Director), the Interactive Media Producers Steering Committee, and the EWG, who helped to review, refine, and pre-test the survey and sample development.

Objectives

Three objectives were established for this study:

- To determine the training needs for competencies identified in the *Interactive Media Producers’ Competency Analysis*;
- To survey the current training offerings for those competencies; and
- To analyze the training gaps based on the training needs assessment and offerings survey (defined as areas where current training offerings do not meet identified industry needs).

Methodology

The research methods and instruments used in this project (described in more detail below) were:

- Interactive media producers’ survey (employers and employees); and
- Secondary research and interviews with institutions that offer training for interactive media producers.

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Survey

The 202 question equivalent survey was reviewed December 9 – 16, 2008, by members of the EWG and pre-tested with members of the Steering Committee; the resulting feedback was used to refine the questionnaire.

kisquared conducted 81 **interviews** in total with employers and employees:

- 18 in French; and
- 63 in English

The initial sample databases was gathered through secondary research and membership lists made available on the Canadian Interactive Alliance/Alliance interactive canadienne (CIAIC), Alliance numérique, Digital Alberta, Interactive Media Alliance of P.E.I. (IMA), Interactive Ontario, Manitoba Interactive Digital Media Association, New Media BC and Saskatchewan Interactive Media Association Inc. (SaskInteractive) websites to ensure a broad representative sample of interactive media producers across Canada. From the membership lists, association members identified as offering a service (enablers), such as lawyers or third parties, were removed from the sample list. Only individuals working in the industry were included. The list was then submitted to the EWG and Steering Committee for review.

Secondary research and interviews with training institutions

Secondary research for this project consisted of gathering data on training offerings across Canada. After completing the interactive media producers survey, **kisquared** conducted Internet research to assess the country's current training offerings. We then interviewed 12 senior staff from institutions providing interactive media producer training to validate findings gained through secondary research and to identify any training gaps.

Interactive media producers' questionnaire design

“Interactive media producers” definition

The questionnaire did not rely on job title alone, but provided a definition of interactive media producers using elements from National Occupational Classification (NOC) codes 5121 Authors and Writers and 5241 Graphic Designers and Illustrators where “interactive” is defined, as well as input from the EWG. The wording of the definition used in the questionnaires is provided below in English and French:

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- *For the purposes of this study, an interactive media producer is defined as someone who manages the vision and the strategy for the design development, plans, designs, and develops a variety of interactive components for digital media; ensures that the business objectives are understood and followed by project principals and oversees all phases of the project life cycle (from initiation and development to production and maintenance). Interactive media producers work in or with occupations such as 3D animators, application designers, games designers, graphic artists, new media or digital media artists, mobile content/applications, program designers or systems architects. They are self-employed, independent contractors (producers) or salaried, or employed by small or large businesses such as new media or digital media production companies, governments, advertising, audiovisual, public relations, publishing or graphic design firms.*
- *Pour les besoins de cette étude, on entendra par producteur ou productrice de médias interactifs toute personne qui gère la vision et la stratégie se rapportant à l'avant-projet, aux plans et à la conception, et qui élabore diverses composantes interactives pour les médias numériques; elle s'assure que les objectifs opérationnels sont compris et suivis par les principaux éléments du projet et supervise toutes les étapes du cycle de vie du projet (de la phase d'initiation et de développement à la production et à l'entretien). Le producteur ou la productrice de médias interactifs exerce des emplois ou travaille avec des personnes exerçant des emplois tels que : animateurs 3D, concepteurs d'applications, concepteurs de jeux, graphistes, artistes nouveaux médias ou médias numériques, contenu mobile/applications, concepteurs de programmes ou architectes systèmes. Il ou elle est travailleur autonome, entrepreneur(e)s indépendant(e)s (réalisateurs(trices) ou salarié(e)s, ou encore employé(e)s par des petites ou grandes organisations comme les entreprises de production de nouveaux médias ou de médias numériques, la fonction publique, la publicité, l'audiovisuel, les relations publiques, les maisons d'édition ou les entreprises de conception graphique.*

Matrix of core competencies converted to measurable skills

The duties contained in the matrix of core competencies were converted to skills by Essential Skills Analyst Katherine Devine of **kisquared**. The questionnaire, including the rewording of the skills, was reviewed by the EWG and Steering Committee members, pre-tested with members of the Steering Committee, and approved by CHRC before fielding commenced.

The 41 *skills* tested are:

- Write project vision;
- Present, implement and manage project vision;
- Determine production development process;
- Manage production development process;
- Ensure compliance of all standards during production development;
- Foster creative environment;
- Assess feasibility and market viability;
- Assemble and consult with clients and expert working groups;
- Identify and secure investments and financing;
- Respond to requests for proposals;
- Determine and measure a project's success criteria;

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- Identify required project resources;
- Determine and manage project timelines and progress;
- Assess and manage risks;
- Develop project budgets;
- Manage project budgets;
- Determine a project's human resource needs;
- Recruit both internally and externally to meet project human resource needs;
- Develop orientation and training for the project team;
- Manage the content assets and rights;
- Establish team performance objectives;
- Manage team performance;
- Develop stakeholder relationships;
- Manage stakeholder relationships;
- Collaborate in developing product marketing strategy;
- Collaborate in developing marketing, public relations, and media relations materials;
- Contribute to product promotion efforts;
- Make product support available to customers;
- Manage the creation, distribution and maintenance of product updates;
- Ensure compliance with all laws, regulations, agreements and requirements;
- Plan, schedule and run effective meetings;
- Active listening skills;
- Presentation skills;
- Negotiation skills;
- Write complex business documents to persuade sophisticated audiences;
- Facilitation skills;
- Leadership skills;
- Problem solving skills;
- Decision making skills;
- Teamwork skills; and
- Analytical thinking skills.

Reporting

This report is organized under the following headings: *Introduction, Executive summary, Recommendations, Skills, Chart of competencies – validation, Skills acquisition, Training offerings, Training gaps analysis* and *Producer profile*. *Appendix A* contains survey marginals (response percentages for each question asked in the survey). *Appendix B* contains summary descriptions of available training programs specific to interactive media producers' skills across Canada. *Appendix C* contains verbatim responses to the three questions below (from the producers' survey instrument):

- Thinking about the skills we just discussed, are there any skills we have missed, or that you think may be required in future?
- What skill or skill set did you learn [at a conference or workshop that you attended in the past year]?
- When thinking about interactive media production training, what are your greatest training needs right now or in the foreseeable future?

Executive summary

Respondent survey profile

- Nearly three-quarters of interactive media producers (73%) surveyed work full-time, although 6% are typically hired as contractors.
- Forty percent of those surveyed have worked as interactive media producers for more than ten years.
- Interactive media producers describe themselves as working full-time (65%), working as contractors (19%) or independently (15%).
- Four-fifths of interactive media producers surveyed (39%) have participated in some type of formal training (e.g., from a college or university) specifically for interactive media production.

Skills usage

The survey tested a total of 41 skills, based on the CHRC interactive media producers' Chart of Competencies. The skills *used* most often—in this survey, by 100% of interactive media producers—are these:

- Active listening skills; and
- Decision making skills

The following skills are *used* least often of all those measured in the study:

- How to write complex business documents to persuade sophisticated audiences (49%); and
- How to identify and secure investments and financing (34%).

For most skills measured (38 out of 41), at least three-quarters of producers (77%) currently *possess* them. The following are most common:

- Problem solving skills (98%);
- Teamwork skills (95%);
- Analytical thinking skills (94%); and
- How to foster a creative environment (94%)

The skills *possessed* by the smallest proportion of producers are the following:

- How to determine and measure a project's success criteria (73%); and
- How to identify and secure investments and financing (59%).

Skills acquisition

- On-the-job training is the most common method of acquiring all of the skills tested. Skills required to plan, schedule and run effective meetings are the skills most likely acquired by on-the-job training (81%).
- Self-teaching is the second-most common way interactive media producers acquire skills. Skills need to foster a creative environment are the skills most often self-taught, according to 61% of producers.
- Even though the easiest understood and common path for training is formal, in actuality for this occupation, formal training is less popular with fewer than half of producers likely to engage in formal education. Skills needed to collaborate in developing marketing, public relations and media relations materials are the skills most likely of any tested that is attributed to formal training (by 48% of producers).
- Informal training (e.g. conferences, workshops or seminars) is the least common means of acquiring most skills. Only one-third of producers (32%) are likely to acquire both negotiation skills and skills required to identify and secure investments and financing through informal training, with significantly smaller proportions of producers acquiring other tested skills informally.
- Over one-half of producers surveyed (53%) have attended some type of informal training within the past year. The skills most often learned at these conferences, workshops and seminars include:
 - Marketing skills;
 - Social networking skills;
 - Upgrading current skills; and
 - Learning about new technologies.

Chart of core competencies – validation

Over one-half of the interactive media producers surveyed (57%) believe the 41-item skills list captures all skills required for interactive media producers and feel that no skills are missing. According to the remaining interactive media producers, the two most significant skills the list fails to mention are the following:

- Creative thinking skills (11%); and
- Skills for adopting new technologies (7%).

Training offerings

- Institutions that offer training programs (formal and informal) for interactive media producers and that were interviewed for this study include:
 - Banff Centre, Banff New Media Institute (Alberta);
 - Capilano University (British Columbia);
 - Centennial College (Ontario);

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- Durham College (Ontario);
 - Holland College (Prince Edward Island);
 - Institut National de L'image et du Son (Québec);
 - National Academy and Design (NAD) Centre (Québec);
 - Red River College (Manitoba);
 - Saskatchewan Institute of Applied Science and Technology (Saskatchewan);
 - Sheridan College (Ontario);
 - University of New Brunswick (New Brunswick); and
 - Vancouver Film School (British Columbia).
- Of the 12 institutions interviewed, most teach a majority of the skills tested; 11 of the tested skills are taught at all 12 institutions. The following skills are taught by the fewest institutions:
 - How to identify and secure investments and financing; manage the creation, distribution and maintenance of product updates; recruit both internally and externally to meet project human resource needs (5 out of 12); and
 - How to make product support available to customers (4 out of 12).
 - Informants from the institutions interviewed feel the greatest training needs for interactive media producers right now or in the foreseeable future include:
 - Acquiring skills to keep up with new technology and skills;
 - Interpersonal/collaboration skills; and
 - Acquiring specialized as opposed to generalized skill training (e.g., texturing in animation, training in video game and simulation programs).
 - Training institutions believe they are prevented from offering more training for interactive media producers for the following reasons:
 - Lack of funding for educational programs (both development and delivery); and
 - Program enrollment caps (to avoid producing more graduates than available jobs).

Skills gap analysis

- Although the percentage of respondents who already “have” a given skill always greatly exceeds that of those who still “need” to acquire that skill, some noteworthy gaps exist. The largest gaps appear in relation to:
 - How to identify and secure investments and financing (48%); and
 - How to ensure compliance with all laws, regulations, agreements and requirements (40%).

Recommendations

- The path to becoming an interactive media producer is not an obvious or immediate one. Available training programs for becoming an interactive media producer is a recent development with only a handful of Canadian institutions offering most of the necessary competencies. Most producers start off within a different area of the industry that eventually leads to the role of producer. Training for the producer's role should be delivered in small modules, as full time training for a one or two year program is not a practical option for many workers. Instead, training should be obtained through evening courses offered in continuing education programs, workshops or conferences. Interactive media producers who pursue training should focus on courses that reflect their job and skill requirements needed to do their jobs effectively. In addition to the current association resources the CHRC has posted on their website, links to regional training institution programs, upcoming workshops and conferences would simplify the training identification process for producers.
- Five percent of interactive media producers indicated they would like to acquire marketing skills. Since the role of a producer includes overseeing the business objectives and managing all phases of the project life cycle, knowledge of financial and business skills is an asset. Producers who have acquired these skills have done so through informal training. Nineteen percent of producers acquired marketing skills and 7% acquired business management skills through conferences or workshops. To obtain the business skills needed, producers may have to seek out the training they need from outside the industry, such as taking courses through business colleges, while institutions that provide training for interactive media producers should consider integrating more business skills training. This training delivery model will work especially well for the nearly two-thirds of interactive media producers employed full-time, and one-third working in contract positions (19%) or independently (15%).
- The interactive media industry is a diverse field and requires monitoring of continuous technological changes. Interactive media producers and training institutions indicated that keeping up with new and emerging skills and technologies continues to remain an important part of staying current within the industry. One component of a producer's skill set requires using hardware and software such as Flash, 3D Animation or Dreamweaver to produce interactive media. To keep pace with the changing and evolving technology, the need for skilled employees is essential. This requires financial support for human and technological resources. CHRC can take the lead in promoting and identifying the resources and training institutions for producers. For training institutions, maintaining and upgrading teaching faculty skill sets are just as important since they are the medium for training the new generation of interactive media producers.
- Two essential skills identified as needed by interactive media producers are creative thinking (7%) and teamwork (4%) respectively. Similarly, training institution faculty identifies creative thinking/problem solving skills and collaborative skills (4 responses each) as two training areas needed by the industry now or in the foreseeable future. Available on the CHRC website are the necessary competencies for producers and a human resource management toolkit *Using competency charts and profiles* that includes a case study for interactive media producers. The competency chart for *New Media Content Creators* identifies professional and general competencies needed to work as a producer. To ensure that graduates entering the industry or current practitioners are meeting the skills requirement, the chart can be used as a guide for developing a job skills profile for interactive media producers. CHRC should further promote these human resource tools to employees and employers working in the industry by creating a job interview guide for interactive media producers, and identifying essentials skills required for this occupation. The guide can be used to assess a minimum amount of competencies required for employment as well as for developing a timetable of when and how future and current workers can acquire the necessary skills.

- Better communication is needed between industry and training institutions. Most training institutions (formal and informal) have a program cap on the number of students admitted into any interactive media program, as institutions do not want to produce more graduates than existing real world jobs. CHRC can play the role of mediator to help institutions better gauge the industry demand for producers within different regions of the country and identify growing sectors. By communicating with training institutions on a regular basis, both CHRC and training institutions can adjust training programs to meet the current market demands for interactive media producers, rather than an estimated or intuitive demand measure.

Skills

Interactive media producers were read a 41-item skill series and asked whether each skill was *required* in their occupation as an interactive media producer.

Skills required for position


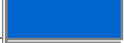






On the following page, Figure 1 lists each of the 41 skills and illustrates the percentage of respondents who say a given skill is *required* to perform the role of an interactive media producer.

- Two skills are required for all producers: active listening and decision making skills, while most skills listed are required by most interactive media producers.
- Least needed are the skills to write complex business documents to persuade sophisticated audiences (49%) and how to identify and secure investments and financing (34%). The latter skill is not surprising since 84% of producers are hired full-time or as contractors by companies.

Figure 1 IS THIS SKILL REQUIRED FOR AN INTERACTIVE MEDIA PRODUCER?

Skill	Yes
Active listening skills	100%
Decision making skills	100%
Problem solving skills	98%
Analytical thinking skills	96%
Teamwork skills	96%
Present, implement and manage project vision	93%
Determine and manage project timelines and progress	91%
Foster creative environment	89%
Determine production development process	85%
Manage production development process	85%
Assemble and consult with clients and expert working groups	83%
Identify required project resources	83%
Presentation skills	82%
Leadership skills	81%
Ensure compliance of all standards during production development	80%
Plan, schedule and run effective meetings	78%
Write project vision	75%
Determine and measure a project's success criteria	70%
Manage the content assets and rights	69%
Negotiation skills	67%
Respond to requests for proposals	67%
Contribute to product promotion efforts	66%
Ensure compliance with all laws, regulations, agreements and requirements	65%
Determine a project's human resource needs	64%
Develop project budgets	64%
Manage project budgets	64%
Manage team performance	63%
Manage the creation, distribution and maintenance of product updates	63%
Assess and manage risks	61%
Assess feasibility and market viability	61%
Collaborate in developing product marketing strategy	60%
Establish team performance objectives	59%
Facilitation skills	59%

Figure 1 continued...

Skill	Yes	
Develop stakeholder relationships	58%	
Recruit both internally and externally to meet project human resource needs	57%	
Manage stakeholder relationships	56%	
Make product support available to customers	55%	
Develop orientation and training for the project team	53%	
Collaborate in developing marketing, public relations, and media relations materials	53%	
Write complex business documents to persuade sophisticated audiences	49%	
Identify and secure investments and financing	34%	

Note: Responses of “don’t know / refused” have been excluded.

Current skills and skill gaps

After producers were asked if each of the 41 skills is required to perform the duties of an interactive media producer, they were then asked if they currently possess each of these skills or if they still need to acquire the skill. When looking at the percentages in the current skills table (Figure 2) and the skill gaps table (Figure 3), the percentages of interactive media producers who possess a specific skill and those who still need to acquire that skill can add up to over 100%. This is because employers could indicate that some of their employees currently possess the skill while others still need to acquire it.

Figure 2 below shows the percentage of producers who currently possess each of the 41 skills.

- More than 80% of interactive media producers currently possess 32 out of the 41 skills tested.
- Although not all skills are required by interactive media producers to perform their jobs (see Figure 1 above), each skill is possessed by at least 77% of those surveyed. For example, acquiring the skills to present, implement and manage project vision is required by only 93% of interactive media producers to perform their jobs, but 87% have these skills.

Figure 2 DO YOU CURRENTLY POSSESS THIS SKILL?


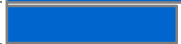
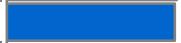

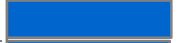














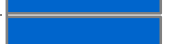


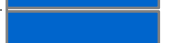


Skill	% of respondents overall	
Problem solving skills	98%	
Teamwork skills	95%	
Analytical thinking skills	94%	
Foster creative environment	94%	
Write project vision	92%	
Active listening skills	91%	
Decision making skills	91%	
Presentation skills	91%	
Develop project budgets	90%	
Manage project budgets	90%	
Manage the creation, distribution and maintenance of product updates	90%	
Facilitation skills	89%	
Leadership skills	89%	
Manage stakeholder relationships	89%	
Plan, schedule and run effective meetings	89%	
Recruit both internally and externally to meet project human resource needs	89%	
Determine and measure a project's success criteria	73%	
Manage production development process	87%	
Present, implement and manage project vision	87%	
Manage team performance	86%	
Assess and manage risks	86%	
Assess feasibility and market viability	85%	
Collaborate in developing product marketing strategy	85%	
Develop stakeholder relationships	85%	
Determine and manage project timelines and progress	85%	

Figure 2 continued...

Skill	% of respondents overall	
Determine a project's human resource needs	83%	
Ensure compliance of all standards during production development	83%	
Assemble and consult with clients and expert working groups	81%	
Collaborate in developing marketing, public relations and media relations materials	80%	
Establish team performance objectives	80%	
Manage the content assets and rights	80%	
Develop orientation and training for the project team	79%	
Make product support available to customers	79%	
Determine production development process	78%	
Write complex business documents to persuade sophisticated audiences	78%	
Contribute to product promotion efforts	77%	
Ensure compliance with all laws, regulations, agreements and requirements	77%	
Negotiation skills	77%	
Identify required project resources	84%	
Respond to requests for proposals	87%	
Identify and secure investments and financing	59%	

Note: Responses of “don’t know / refused” have been excluded.

Figure 3 compares the EWG Chart of competencies with skill gaps identified by interactive media producers. Three-quarters of the skills tested relate to professional competencies, while the remaining skills relate to general competencies. As shown in the table, interactive media producers are still in need of developing many of the skills required as over one-quarter of the skills tested requires development (over 31% of producers need to acquire training for a particular skill). All the skills tested that fell under the competencies of “Launch and promote a product” require the most development of any of the categories. Many interactive media producers surveyed identified the need for developing business skills. For general competencies, skills tested under the competencies for “Demonstrate communication and interpersonal skills” also require more development. Interestingly, both negotiation skills and skills needed to write complex business documents are strongly related to business skills.

The following page illustrates these skills gaps.

- Interactive media producers are most likely *to lack* the required skills on how to:
 - Identify and secure investments and financing (48%); and
 - Ensure compliance with all laws, regulations, agreements and requirements (40%)
- Interactive media producers are most likely *to already have* (i.e. a small number of respondents said they currently possess) the following two skills:
 - Problem solving skills (15%); and
 - Teamwork skills (14%).

Figure 3 SKILL GAPS

Chart of competencies	Skill	% of producers
A. Articulate and drive a vision for a project	Present, implement and manage project vision	32%
	Write project vision	20%
B. Oversee development of a project	Determine production development process	37%
	Ensure compliance of all standards during production development	34%
	Manage production development process	25%
C. Facilitate concept generation	Assess feasibility and market viability	33%
	Assemble and consult with clients and expert working groups	28%
	Foster creative environment	19%
D. Facilitate financing	Identify and secure investments and financing	48%
	Respond to requests for proposals	28%
E. Plan a project	Determine and measure a project's success criteria	38%
	Determine and manage project timelines and progress	27%
	Identify required project resources	21%
	Plan, schedule and run effective meetings	19%
F. Manage a project schedule	Assess and manage risks	31%
G. Manage a budget	Develop project budgets	25%
	Manage project budgets	23%
H. Build a team	Develop orientation and training for the project team	29%
	Determine a project's human resource needs	25%
	Recruit both internally and externally to meet project human resource needs	22%
I. Manage teams	Establish team performance objectives	24%
	Manage team performance	18%
J. Maintain a relationship with stakeholders	Develop stakeholder relationships	22%
	Manage stakeholder relationships	20%

Professional

Figure 3, continued...

K. Launch and promote a product	Collaborate in developing marketing, public relations, and media relations materials	38%	Professional	
	Contribute to product promotion efforts	37%		
	Collaborate in developing product marketing strategy	36%		
L. Ensure product maintenance and support	Make product support available to customers	26%		
	Manage the creation, distribution and maintenance of product updates	22%		
M. Comply with laws, regulations and other obligations	Ensure compliance with all laws, regulations, agreements and requirements	40%		
	Manage the content assets and rights	35%		
N. Demonstrate communication and interpersonal skills	Negotiation skills	38%		General
	Write complex business documents to persuade sophisticated audiences	38%		
	Facilitation skills	34%		
	Presentation skills	21%		
	Active listening skills	18%		
O. Demonstrate personal skills	Leadership skills	32%		
	Decision making skills	21%		
	Analytical thinking skills	19%		
	Problem solving skills	15%		
	Teamwork skills	14%		

Note: Responses of “don’t know / refused” have been excluded.

Figure 4 on the following page shows the skills required by interactive media producers in order of necessity, with their associated skill gaps. Some skill gaps are larger among the least-required skills, such as how to manage a team’s performance (19%) and how to assess feasibility (13%). However, some of the most-required skills, such as problem solving skills (10%) and decision making skills (9%) also have sizable gaps.

Figure 4 SKILL REQUIREMENTS VS. SKILL GAPS

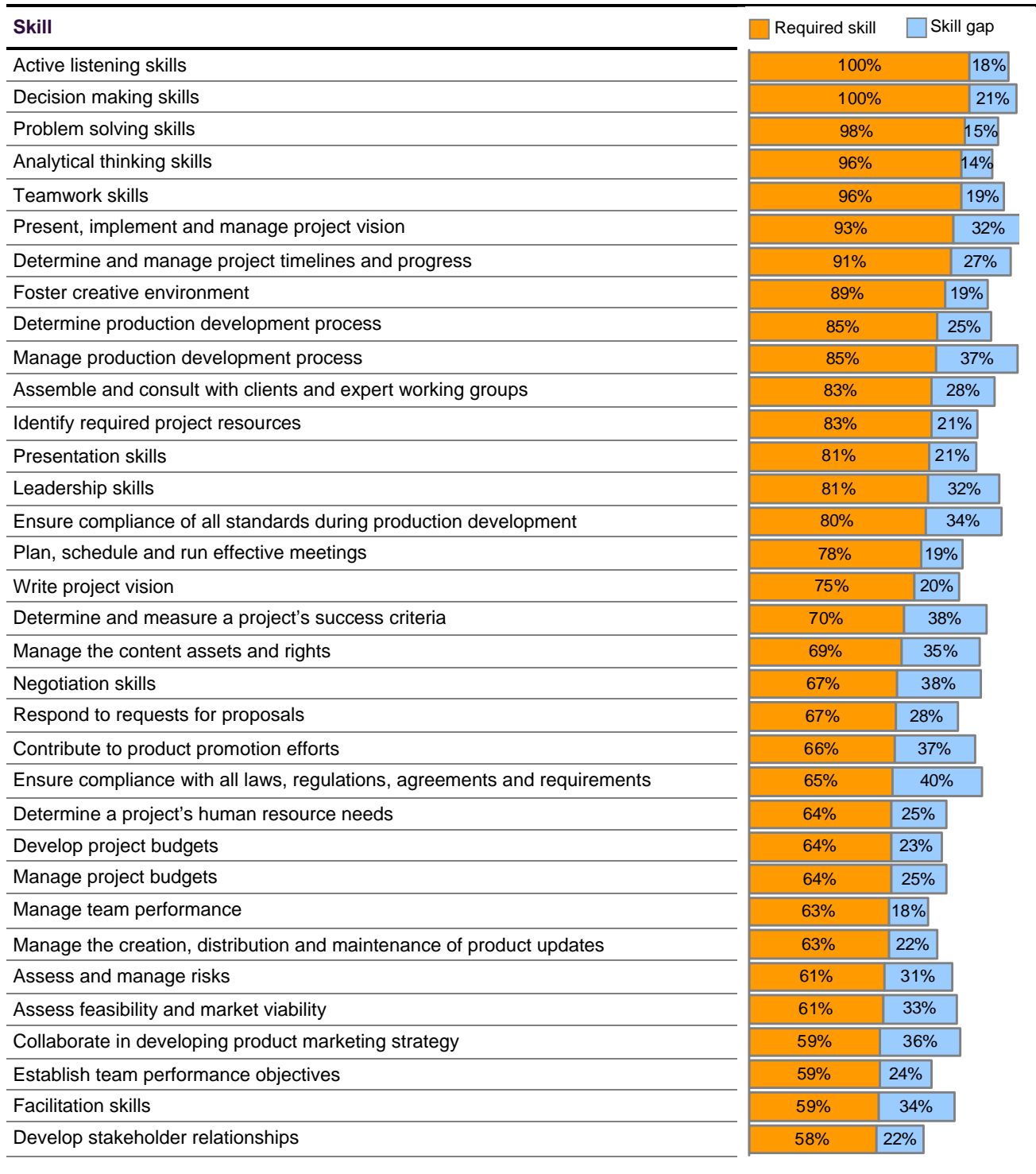


Figure 4 continued...

Skill		
Recruit both internally and externally to meet project human resource needs	57%	22%
Manage stakeholder relationships	56%	20%
Make product support available to customers	55%	26%
Develop orientation and training for the project team	53%	38%
Collaborate in developing marketing, public relations, and media relations materials	53%	29%
Write complex business documents to persuade sophisticated audiences	49%	38%
Identify and secure investments and financing	34%	48%

Note: Skill gaps calculated as per Figure 3.

Perceived training gaps

Interactive media producers were asked to state what they see as the most significant training gaps for producers now or in the future (see Figure 5 below). Complete verbatim responses to this question are provided in *Appendix C*.

- Interactive media producers identified their greatest training needs now or in the near future. Producers need to acquire the skills for adopting new and emerging technologies (16%), programming in different platforms (10%), project management skills (10%) and web programming skills (10%).
- One in ten producers (11%) says they have no immediate training needs.

Figure 5 TRAINING GAPS IDENTIFIED BY INTERACTIVE MEDIA PRODUCERS

Skill	%
Adopting new and emerging technologies	16%
None	11%
Programming in different platforms	10%
Project management skills	10%
Web programming	10%
Creative thinking skills	7%
Flash (software)	6%
Self-improvement/professional development	6%
*Marketing in different regions	5%
Game development	5%
*Recruit and manage HR needs	4%
*Teamwork skills	4%
Business development	4%
Communication	4%

Figure 5, continued...

Skill	%
Interpersonal skills	4%
Researching new technologies	4%
Resource management	4%
Social media	4%
*Leadership skills	3%
*Marketing online	3%
Animation	3%
DVD production	3%
Editing skills	3%
*Accounting skills	1%
*Develop training for peers	1%
*Manage content and asset rights	1%
*Product development	1%
*Secure financing	1%
Artistic development	1%
Business approach	1%
E-Learning	1%
Graphic design	1%
Improve technical skills	1%
Mash designer (software)	1%
Script writing	1%

Note: Responses of ‘Don’t know / refused’ have been excluded. Percentages exceed 100% because multiple responses were accepted. * Denotes one of the 41 skills asked in the skills sheet.

Chart of competencies – validation

The 41 skills assessed by the survey are based closely on the matrix of core competencies developed by the CHRC. To objectively validate this chart of competencies, producers were asked if there are any additional skills not covered in the survey or may be required in future. Results are shown in Figure 6 below.

Over two-thirds of interactive media producers (68%) feel the chart of competencies reflects the range of required job skills.

However, acquiring programming/computer skills (5%) is one of the skills producers indicated as missing from the skills list.

Figure 6 PERTINENT SKILLS NOT COVERED BY SURVEY

Training need	%
None	68%
Programming/computer skills	5%
Other	3%
Accountability	1%
Architect design	1%
Better work ethic	1%
Design skills	1%
Interactive design	1%
Meet goals	1%
Storyboarding	1%
Strategic planning skills	1%
Understanding terminology	1%

Skills acquisition

Interactive media producers who said they possess a skill or need to acquire it were asked where they acquired the skill or where they expect to acquire it in the future. Responses were then grouped into five categories: self-taught (as in independent study, or while *not* on the job); on-the-job; informal training / conference / workshop; formal training; and innate.

Figure 7 below shows the method or expected method of skill acquisition for each skill tested.

Figure 7 SKILLS PATH ACQUISITION

Skill	On the job	Self-taught	Formal	Informal/ conference/ workshop	Innate
Plan, schedule and run effective meetings	81%	33%	22%	21%	2%
Manage the creation, distribution and maintenance of product updates	80%	24%	22%	10%	0%
Make product support available to customers	79%	33%	17%	5%	0%
Assemble and consult with clients and expert working groups	78%	39%	13%	15%	2%
Ensure compliance of all standards during production development	78%	31%	27%	14%	0%
Recruit both internally and externally to meet project human resource needs	78%	39%	17%	24%	0%
Determine and manage project timelines and progress	77%	28%	31%	18%	0%
Assess and manage risks	76%	31%	20%	27%	0%
Identify required project resources	76%	30%	21%	14%	0%
Respond to requests for proposals	76%	42%	19%	15%	0%
Determine production development process	75%	38%	40%	25%	0%
Develop project budgets	75%	29%	29%	19%	0%
Present, implement and manage project vision	75%	45%	36%	21%	0%
Problem solving skills	75%	56%	46%	22%	3%
Decision making skills	74%	48%	33%	21%	4%
Develop orientation and training for the project team	74%	24%	17%	21%	0%
Manage team performance	74%	30%	20%	12%	0%
Teamwork skills	74%	50%	32%	19%	4%
Collaborate in developing marketing, public relations, and media relations materials	73%	33%	48%	30%	0%
Contribute to product promotion efforts	73%	31%	31%	23%	0%
Determine a project's human resource needs	73%	31%	17%	23%	0%
Ensure compliance with all laws, regulations, agreements and requirements	73%	26%	29%	22%	0%
Establish team performance objectives	73%	33%	29%	20%	2%
Manage project budgets	73%	37%	37%	19%	0%

Figure 7, continued...

Skill	On the job	Self-taught	Formal	Informal/ conference/ workshop	Innate
Manage stakeholder relationships	73%	40%	11%	13%	2%
Develop stakeholder relationships	72%	39%	13%	9%	0%
Facilitation skills	71%	48%	32%	23%	2%
Leadership skills	69%	45%	19%	28%	2%
Manage production development process	68%	41%	36%	20%	0%
Write project vision	67%	45%	37%	23%	0%
Manage the content assets and rights	66%	23%	32%	26%	0%
Analytical thinking skills	65%	52%	47%	17%	1%
Write complex business documents to persuade sophisticated audiences	65%	38%	46%	30%	0%
Negotiation skills	64%	49%	25%	32%	2%
Determine and measure a project's success criteria	63%	30%	27%	20%	0%
Collaborate in developing product marketing strategy	61%	37%	37%	30%	2%
Foster creative environment	61%	61%	28%	19%	1%
Presentation skills	59%	53%	35%	27%	2%
Active listening skills	58%	60%	19%	15%	4%
Assess feasibility and market viability	58%	31%	29%	19%	0%
Identify and secure investments and financing	56%	36%	32%	32%	0%

Note: Responses of “don’t know / refused” have been excluded. Percentages exceed 100% because multiple responses were accepted.

Learning on the job

On the job learning is by far the most common method of acquiring skills for interactive media producers. More than one-half of interactive media producers indicate on-the-job learning as the method by which they acquired or expect to acquire each of the following skills tested. Interactive media producers feel strongly that the significant majority of all learning related to their field occurs on the job.

Producers are less likely to acquire the following skills through on the job training:

- Presentation skills (59%);
- Active listening skills (58%);
- How to assess feasibility and market viability (58%); and
- How to identify and secure investments and financing (56%).

Based on cross-tabulations, the following regional differences exist for expected skill acquisition through on-the-job training:

- Producers from the following regions are more likely to seek on the job training for the following skills:
 - British Columbia producers are more likely to seek on the job training for problem solving skills (91%), acquiring skills for writing a project vision (90%), analytical thinking skills (80%) and teamwork skills (82%).
 - Producers from Ontario or Atlantic Canada are more likely to seek on the job training skills for learning how to develop stakeholder relationships (100%), how to manage the team's performance (100%), how to write a project vision (88%) and acquiring the skills on how to present, implement and manage the project vision (83%).
 - Those producers based in the Prairies are more likely to seek on the job training skills for presenting, implementing and managing the project vision (88%), teamwork skills (85%), analytical thinking skills (82%) and acquiring skills to manage the team performance (80%).
- Interactive media producers working full-time are more likely to seek on the job training to gain skills for ensuring compliance of all standards during production development (85%), learning how to manage the content and asset rights (73%) and how to collaborate in developing project marketing strategies (72%).

Self-teaching

Self-teaching, or learning through independent study, is a fairly common method of learning for interactive media producers. The two skills most likely self-taught are acquiring the skills to foster a creative environment (61%) and active listening skills (60%).

Based on cross-tabulations, the following observations can be made:

- Interactive media producers who have been working six to ten years are more likely to use self-teaching to learn skills on how to manage team performance (60%), negotiation skills (75%) and how to write complex business documents to persuade sophisticated audiences (70%).

Formal training

While formal training at a college or university is a fairly common career path for interactive media producers, producers do not necessarily attribute skill acquisition to formal training. Over one-third of interactive media producers surveyed (39%) received some type of formal education, however no more than 48% of producers acquired or plan to acquire, any one skill through formal education.

More than one-third of interactive media producers (39%) cite formal training as the method by which they acquired or expect to acquire the following skills:

- How to collaborate in developing marketing, public relations, and media relations materials (48%);
- Analytical thinking skills (47%);
- Problem solving skills (46%); and

- How to write complex business documents to persuade sophisticated audiences (46%).

Based on cross-tabulations, the following observations can be made:

- Employers are more likely to have acquired, or expect to acquire, the following skills through formal training:
 - How to determine the production development process (53%); and
 - How to collaborate in developing marketing, public relations, and media relations materials (65%).

Informal training

Informal training through workshops, conferences and seminars is not a particularly common method of acquiring interactive media production skills. Less than one-third of interactive media producers acquired any skill through informal training.

Based on cross tabulations, the following observation can be made:

- Interactive media producers working full time are more likely to use informal training to acquire the skills for ensuring compliance of all standards during production development (20%).

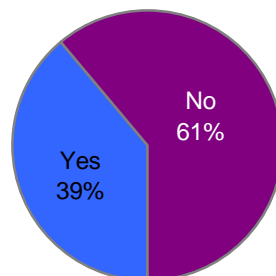
Innate

The innate category, or “being born” with the skill, was included in the survey. These skills are something a producer either has or does not. The top skill sets identified as innate include decision making skills, teamwork skills, and active listening skills (4% each).

Producer training

Figure 8 below shows that nearly two-fifths of interactive media producers (39%) have participated in a formal training program, such as a university or college program.

Figure 8 PARTICIPATION IN FORMAL TRAINING FOR INTERACTIVE MEDIA PRODUCERS



Of those interactive media producers who participated in a training program, college-based education is more common than university-based education (see Figure 9 below).

Figure 9 TRAINING INSTITUTIONS

Institution	Count
Algonquin College	2
Institut National de L'Image et du Son (INIS)	2
Red River College	2
Sheridan College	2
L'Université du Québec à Montréal	2
Assiniboine Community College	1
Canadian Film Centre	1
Cégep St-Jean-sur-Richelieu	1
Centennial College	1
Chalmers University of Technology (Sweden)	1
Collège Bart	1
Collège de Bois-de-Boulogne	1
Concordia University	1
Durham College	1
Fanshawe College	1
Holland College	1
Humber College	1
International Academy of Design and Technology	1
National Animation and Design (NAD) Centre	1
Robertson College	1
Saskatchewan Institute of Applied Science and Technology	1
Seneca College	1
Southern Alberta Institute of Technology	1
Seneca College	1
University of British Columbia, Emily Carr University and Capilano University (joint degree)	1
University of British Columbia	1
University of Manitoba	1
University of Regina	1
University of Saskatchewan	1
University of Waterloo	1
Western Ontario University	1
Winnipeg Technical College	1
York University	1

Note: The counts are based on 31 surveys.

As shown in Figure 10 below, of the 81 interactive media producers surveyed, only 37 have completed a training program. The most common programs taken were Graphic Design, Information Technology and 3D Computer Graphics.

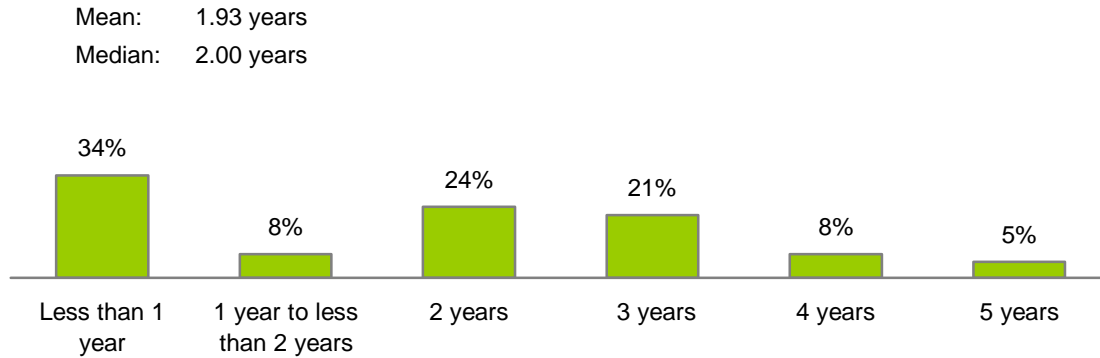
Figure 10 NAME OF THE TRAINING PROGRAM

Name of the program	# who took program
Graphic design	3
Techniques de l'informatique (Information Technology)	2
3D Computer Graphics/ Techniques d'animation 3D	2
Animation	1
Baccalauréat en Communication	1
Bachelor of Design	1
Bachelor of Fine Arts	1
Bachelor of Media Arts (Film, Video and Integrated media)	1
Certificate in Entertainment administration	1
CFC Media Lab	1
Data production	1
Département des Arts Plastiques et Musique	1
Digital MultiMedia Technology	1
Interactive Digital Media	1
Maîtrise en Communication (Média interactif)	1
Master of Arts in Media Study	1
Masters Education Technology	1
Masters in Educational Technology	1
Masters of Science and Applied Technology	1
Média Interactif-institut	1
Media production—Audio, video and Multimedia	1
Media Resources	1
Multimedia program	1
New Media	1
Object Oriented Software Developer	1
Software Engineering	1
Video Game Design and Development	1
Web Design	1
Website Design and Development	1

Note: Responses of “Don’t know / refused’ have been excluded. Multiple responses were accepted. The numbers are based on 37 producers who identified which program they studied.

Most programs last from less than one year to two years (Figure 11).

Figure 11 DURATION OF TRAINING PROGRAMS

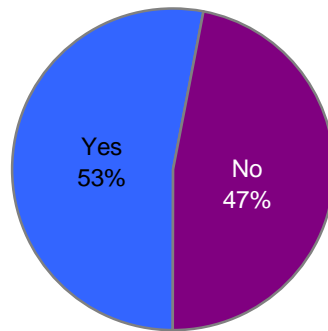


Note: Responses of “Don’t know / refused” have been excluded. Percentages exceed 100% because multiple responses were accepted. The percentages are based on 31 surveys.

Respondent professional development

Over one-half of interactive media producers (53%) have attended informal training, such as a conference or a workshop, in the past year (see Figure 12 below).

Figure 12 CONFERENCE OR WORKSHOP ATTENDANCE—PAST YEAR



Interactive media producers who did attend a conference or workshop in the past year were asked what skill or skill set it pertained to (see Figure 13). Verbatim responses are provided in *Appendix C*.

Marketing (19%), social networking, upgrading current skills and learning about emerging technologies (14% each) are the skill sets learned most often at conferences or workshops.

Figure 13 PROFESSIONAL DEVELOPMENT—SKILL SET

Skill / skill set	%
Marketing skills	19%
Emerging technologies	14%
Social networking skills	14%
Upgrading current skills	14%
Project management	9%
Web development skills	9%
Business management skills	7%
Computer skills	7%
Management skills	7%
Production skills	7%
Communication skills	5%
Financial management skills	5%
Leadership skills	5%
Storytelling skills	5%
Client relationship management	2%
Game development skills	2%
Investment skills	2%
Modelling simulations	2%
Motivational skills	2%
Negotiation skills	2%
Presentation skills	2%
Programming skills	2%
Time management skills	2%
Trade missions	2%
Understanding the law	2%

Note: Responses of “Don’t know / refused’ have been excluded. Multiple responses were accepted. The percentages are based on 43 surveys.

Conference and workshop attendees were also asked who offered the informal training they received (see Figure 14).

As Figure 14 shows, the most frequently cited organizations that offer conferences, workshops and seminars for interactive media producers are the Game Developers Conference and the nextMEDIA conference.

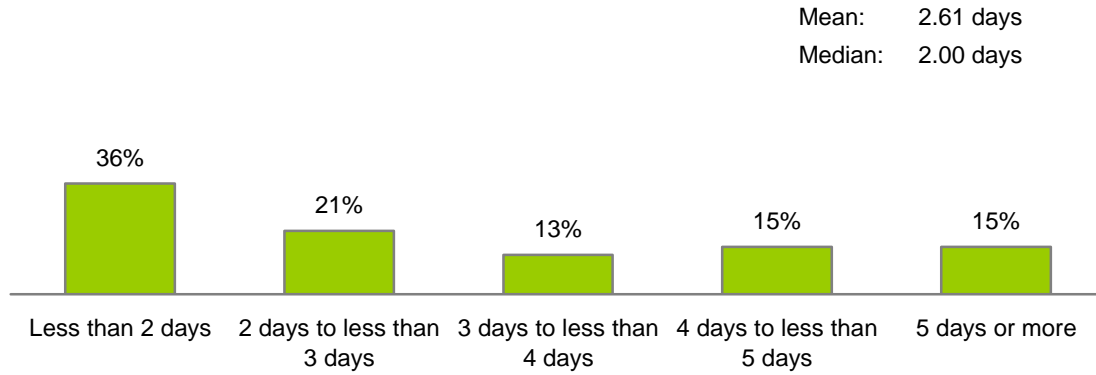
Figure 14 PROFESSIONAL DEVELOPMENT ORGANIZATIONS

Organization	Count of organizations
Game Developers Conference	4
nextMEDIA	4
Montreal International Game Summit	3
New Media BC	3
Banff Centre	2
Interactive Ontario	2
American Institute of Graphic Arts	1
Art Direct Gil	1
Association for Educational Communications and Technology	1
Atlantic Internet Marketing (AIM)	1
Canadian Embassy	1
Canadian Network for Innovation in Education	1
Deborah Black Communications	1
Digital Alberta	1
Edmonton Flash User Group	1
Final Cut MTL	1
Flash in the Can (FITC)	1
Future Media Concepts, Inc.	1
HOW Magazine	1
Info Press Communication	1
Interactive Content Exchange	1
International Game Developer Association	1
International Market Association	1
National Association of Broadcasters	1
Project Management Institute	1
South by Southwest	1
University of Québec	1
Virtual world online multi player game	1

Note: Responses of “Don’t know / refused” have been excluded. Multiple responses were accepted. The counts are based on 43 surveys.

Most professional development courses last less than two days (see Figure 15).

Figure 15 INFORMAL TRAINING DURATION



Note: Percentages are based on 39 surveys.

Training offerings

Twelve interviews were conducted with *training institutions* about their training offerings for interactive media producers. Wherever possible, these interviews were conducted with senior staff members familiar with the content of the programs offered at their institution. These findings are intended to provide a general overview of training offerings and do not evaluate the quality and type of education offered (e.g. practically-oriented vs. theoretically based).

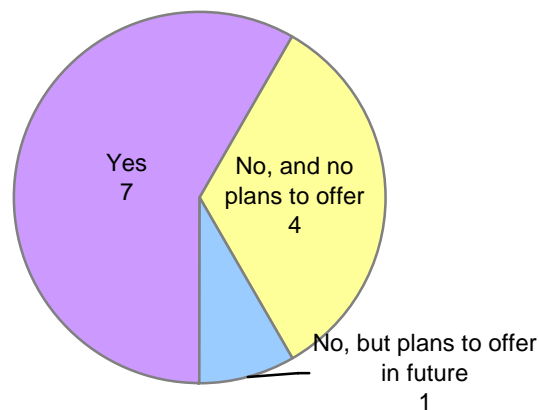
Formal training

Co-op placements and internships

As Figure 16 below shows, seven of the training institutions offer co-op placements or internship opportunities to interactive media producer students. Of those that do not currently offer such opportunities, only one plans to offer co-op placements or internships in the future.

Figure 16 CO-OP PLACEMENTS AND INTERNSHIPS

Do you offer co-ops or internships for your film and television directing students?



Curriculum content

Senior staff members at training institutions were then asked whether their program offered training for each of the skills examined in the interactive media producer survey. Figure 17 shows that 11 of the 41 skills are taught by all 12 of the training institutions interviewed. Skills needed to identify and secure investments and financing, manage the creation, distribution and maintenance of product updates, recruit both internally and externally to meet project human resource needs and acquiring skills to make product support available to customers are taught by the fewest institutions.

Figure 17 CURRICULUM CONTENT

Skills	Count of institutions offering (of 12)
Determine a project's human resource needs	12
Determine and manage project timelines and progress	12
Determine and measure a project's success criteria	12
Determine production development process	12
Establish team performance objectives	12
Foster creative environment	12
Identify required project resources	12
Manage production development process	12
Manage team performance	12
Present, implement and manage project vision	12
Problem solving skills	12
Analytical thinking skills	11
Decision making skills	11
Manage the content assets and rights	11
Plan, schedule and run effective meetings	11
Presentation skills	11
Teamwork skills	11
Write project vision	11
Active listening skills	10
Assess feasibility and market viability	10
Ensure compliance of all standards during production development	10
Assemble and consult with clients and expert working groups	9
Develop project budgets	9
Leadership skills	9
Manage project budgets	9
Manage stakeholder relationships	9
Respond to requests for proposals	9
Assess and manage risks	8
Develop stakeholder relationships	8
Collaborate in developing product marketing strategy	7
Develop orientation and training for the project team	7
Ensure compliance with all laws, regulations, agreements and requirements	7
Facilitation skills	7

Figure 17 continued...

Collaborate in developing marketing, public relations, and media relations materials	6
Contribute to product promotion efforts	6
Negotiation skills	6
Write complex business documents to persuade sophisticated audiences	6
Identify and secure investments and financing	5
Manage the creation, distribution and maintenance of product updates	5
Recruit both internally and externally to meet project human resource needs	5
Make product support available to customers	4

Figure 18 below summarizes training offerings by institution.

Figure 18 SKILLS TRAINING OFFERED

Skill	Banff Centre, Banff New Media Institute	Capilano University	Centennial College	Durham College	Holland College	Institut National de l'image et du son	National Academy and Design (NAD) Centre	Red River College	Saskatchewan Institute of Applied Science and Technology	Sheridan College	University of New Brunswick	Vancouver Film School
Write project vision	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
Present, implement and manage project vision	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Determine production development process	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Manage production development process	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ensure compliance of all standards during production development	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Foster creative environment	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Assess feasibility and market viability	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓
Assemble and consult with clients and expert working groups	✓	✓	✓	✓	✓	✓	✓	✓	✓	DK		
Identify and secure investments and financing	✓		✓		✓	✓				✓		
Respond to requests for proposals	✓		✓	✓	✓	✓	✓		✓	✓		✓
Determine and measure a project's success criteria	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Identify required project resources	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Determine and manage project timelines and progress	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Assess and manage risks	✓		✓	✓	✓	✓	✓			✓		✓
Develop project budgets	✓	✓	✓	✓	✓	✓	✓			✓		✓
Manage project budgets	✓	✓	✓	✓	✓	✓	✓			✓		✓

Figure 18, continued...

Skill	Banff Centre, Banff New Media Institute	Capilano University	Centennial College	Durham College	Holland College	Institut National de l'image et du son	National Academy and Design (NAD) Centre	Red River College	Saskatchewan Institute of Applied Science and Technology	Sheridan College	University of New Brunswick	Vancouver Film School
Determine a project's human resource needs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Recruit both internally and externally to meet project human resource needs	✓		✓		✓	✓	✓					
Develop orientation and training for the project team	✓		✓		✓	✓	✓		✓	✓		
Manage the content assets and rights	✓	✓	✓		✓	✓		✓	✓	✓	✓	✓
Establish team performance objectives	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Manage team performance	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Develop stakeholder relationships	✓	✓	✓		✓	✓	✓		✓	✓		
Manage stakeholder relationships	✓	✓	✓		✓	✓	✓	✓	✓	✓		
Collaborate in developing product marketing strategy	✓		✓	✓	✓	✓				✓	✓	
Collaborate in developing marketing, public relations, and media relations materials	✓		✓		✓	✓				✓	✓	
Contribute to product promotion efforts	✓		✓	✓	✓	✓				✓		
Make product support available to customers			✓	✓	✓				✓			
Manage the creation, distribution and maintenance of product updates			✓	✓	✓	✓				✓		
Ensure compliance with all laws, regulations, agreements and requirements	✓		✓	✓	✓	✓			✓	✓		
Plan, schedule and run effective meetings	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
Active listening skills		✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
Presentation skills	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓

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Figure 18, continued...

Skill	Banff Centre, Banff New Media Institute	Capilano University	Centennial College	Durham College	Holland College	Institut National de l'image et du son	National Academy and Design (NAD) Centre	Red River College	Saskatchewan Institute of Applied Science and Technology	Sheridan College	University of New Brunswick	Vancouver Film School
Negotiation skills		✓	✓		✓	✓			✓	✓		
Write complex business documents to persuade sophisticated audiences	✓		✓	✓	✓	✓						✓
Facilitation skills	✓		✓		✓				✓	✓	✓	✓
Leadership skills			✓	✓	✓	✓	✓		✓	✓	✓	✓
Problem solving skills	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Decision making skills		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Teamwork skills	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
Analytical thinking skills		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Training gaps

All 12 training institutions surveyed provided a response when asked what the greatest training needs are for interactive media producers now or in the foreseeable future. The greatest training needs cited by institutions are listed in Figure 19. Curriculum gaps cited related to keeping up with new technology, collaboration and creative thinking/problem solving skills and specialty training.

Figure 19 TRAINING GAPS IDENTIFIED BY FORMAL TRAINING INSTITUTIONS

Keeping up with new technologies and skills (4).

Creative thinking/problem solving skills (4).

Collaboration skills (4).

Focusing training in specific areas, not general training (4).

Identifying funding sources.

Project management (managing human and financial resources).

Understanding intellectual property rights.

Ensuring graduates are job ready for the market place.

Having a diverse skill set to work in multiple platforms.

Training barriers

Formal training institutions were asked whether any barriers prevent their program from offering more training for interactive media producers. Training institutions cite funding to keep programs running and for meeting technology needs and producing graduates to meet the current job demand (not overflowing the market) as three major barriers to offering more training in interactive media production.

Training gaps analysis

Training offerings analysis

Of the twelve training institutions interviewed, three are located in Ontario respectively, two are located in Québec, British Columbia and Atlantic Canada (Prince Edward Island and New Brunswick) respectively, and one each in Alberta, Saskatchewan and Manitoba. Nova Scotia also offers formal training but their training offerings were not verified for this study.

Skills gap analysis

Figure 20 below shows the skills gap, which is the percentage of producers who say a specific skill is *needed* (required *and* to acquire). Expectations as to where that skill will be acquired, are shown in the five right-most columns.

- On-the-job training is the most common means by which interactive media producers anticipate acquiring the needed skills.
- Self-teaching is the least common skills acquisition path.

Figure 20 SKILLS GAPS AND FUTURE ACQUISITION PATH

Skills	Skills gap	Need to acquire (N)	Expectation of how skills gap will be filled				
			On the job	Self-taught	Formal training	Informal training	Don't know
Identify and secure investments and financing	48%	13	5	4	5	6	0
Ensure compliance with all laws, regulations, agreements and requirements	40%	21	12	5	8	9	0
Collaborate in developing marketing, public relations, and media relations materials	38%	15	10	3	5	7	0
Determine and measure a project's success criteria	38%	21	13	4	6	10	0
Negotiation skills	38%	20	13	6	8	12	0
Write complex business documents to persuade sophisticated audiences	38%	14	7	5	11	5	0
Contribute to product promotion efforts	37%	19	11	3	6	9	0
Determine production development process	37%	25	18	8	11	9	0
Collaborate in developing product marketing strategy	36%	17	9	5	9	11	0
Manage the content assets and rights	35%	19	9	2	7	12	0
Ensure compliance of all standards during production development	34%	22	19	4	4	6	0

Figure 20, continued...

Skills	Skills gap	Need to acquire (N)	Expectation of how skills gap will be filled				
			On the job	Self-taught	Formal training	Informal training	Don't know
Assess feasibility and market viability	33%	16	9	4	6	8	0
Leadership skills	32%	21	16	9	6	11	0
Present, implement and manage project vision	32%	24	20	13	9	7	0
Assess and manage risks	31%	15	10	3	3	10	0
Develop orientation and training for the project team	29%	12	9	2	3	6	0
Assemble and consult with clients and expert working groups	28%	19	15	5	4	7	0
Respond to requests for proposals	28%	15	11	6	1	4	0
Determine and manage project timelines and progress	27%	20	14	5	3	8	0
Make product support available to customers	26%	11	9	3	1	2	0
Determine a project's human resource needs	25%	13	8	4	2	9	0
Develop project budgets	25%	13	10	3	2	7	0
Manage production development process	25%	17	13	7	4	7	0
Establish team performance objectives	24%	11	6	3	4	5	0
Manage project budgets	23%	12	8	5	4	6	0
Develop stakeholder relationships	22%	10	7	3	4	3	0
Manage the creation, distribution and maintenance of product updates	22%	11	10	2	3	3	0
Recruit both internally and externally to meet project human resource needs	22%	10	7	4	4	8	0
Decision making skills	21%	17	16	6	6	5	0
Identify required project resources	21%	14	8	6	4	7	0
Presentation skills	21%	14	11	5	5	7	0
Manage stakeholder relationships	20%	9	8	1	2	2	0
Write project vision	20%	12	9	5	5	5	0
Analytical thinking skills	19%	15	12	7	6	5	0
Foster creative environment	19%	14	13	7	3	3	0
Plan, schedule and run effective meetings	19%	12	10	4	2	5	0
Active listening skills	18%	14	10	5	3	5	0
Manage team performance	18%	9	6	2	2	2	0
Problem solving skills	15%	12	11	7	8	5	0
Teamwork skills	14%	11	11	4	3	4	0

Note: Numbers shown under “Expectation of how skills gap will be filled” are the actual number of respondents who still need to acquire the specific skill, broken down by the method(s) by which they will acquire that skill. The five right-hand columns, when summed across the row, may exceed the total number of respondents because multiple responses were accepted.

Addressing skills gaps: training institutions

Figure 21 below shows the following for each skill tested in the study:

- the skills gap;
- the number of respondents who say they need to acquire the skill;
- the number of interactive media producers who say they need the skill and who expect to address this gap through training; and
- the number of training institutions providing training (out of a total of 12 interviewed).

One-quarter of the skills tested (11 of 41) are taught by all twelve of the formal training institutions interviewed. No fewer than four training institutions offer training in any one skill.

Figure 21 ANALYSIS: SKILLS GAPS, NEED TO ACQUIRE SKILL, TRAINING OFFERINGS

Skills	Skills gap	Need to acquire (N)	Address through training?	Count of institutions offering (of 12)
Identify and secure investments and financing	48%	13	5	5
Ensure compliance with all laws, regulations, agreements and requirements	40%	21	8	7
Collaborate in developing marketing, public relations, and media relations materials	38%	15	5	6
Determine and measure a project's success criteria	38%	21	6	12
Negotiation skills	38%	20	8	6
Write complex business documents to persuade sophisticated audiences	38%	14	11	6
Contribute to product promotion efforts	37%	19	6	6
Determine production development process	37%	25	11	12
Collaborate in developing product marketing strategy	36%	17	9	7
Manage the content assets and rights	35%	19	7	11
Ensure compliance of all standards during production development	34%	22	4	10
Facilitation skills	34%	15	8	7
Assess feasibility and market viability	33%	16	6	10
Leadership skills	32%	21	6	9
Present, implement and manage project vision	32%	24	9	12

Figure 21, continued...

Skills	Skills gap	Need to acquire (N)	Address through formal training?	Count of institutions offering (of 12)
Assess and manage risks	31%	15	3	8
Develop orientation and training for the project team	29%	12	3	7
Assemble and consult with clients and expert working groups	28%	19	4	9
Respond to requests for proposals	28%	15	1	9
Determine and manage project timelines and progress	27%	20	3	12
Make product support available to customers	26%	11	1	4
Determine a project's human resource needs	25%	13	2	12
Develop project budgets	25%	13	2	9
Manage production development process	25%	17	4	12
Establish team performance objectives	24%	11	4	12
Manage project budgets	23%	12	4	9
Develop stakeholder relationships	22%	10	4	8
Manage the creation, distribution and maintenance of product updates	22%	11	3	5
Recruit both internally and externally to meet project human resource needs	22%	10	4	5
Decision making skills	21%	17	6	11
Identify required project resources	21%	14	4	12
Presentation skills	21%	14	5	11
Manage stakeholder relationships	20%	9	2	9
Write project vision	20%	12	5	11
Analytical thinking skills	19%	15	6	11
Foster creative environment	19%	14	3	12
Plan, schedule and run effective meetings	19%	12	2	11
Active listening skills	18%	14	3	10
Manage team performance	18%	9	2	12
Problem solving skills	15%	12	8	12
Teamwork skills	14%	11	3	11

Training gaps: skill by skill

Each of the 41 skills measured in this study are discussed in this next section covering the following points in sequence:

- The size of the skills gap;
- The percentage of interactive media producers who say the skill is required to perform their job;
- How interactive media producers expect to address a given gap (e.g., on-the-job training, formal training, informal training or self-teaching), and any statistically significant cross-tabulations;
- The number of institutions and organizations that offer training for each skill. A total of 12 interviews were conducted with training institutions. Readers should note once again, that evaluating the quality and type of education (e.g. practically-oriented vs. theoretically-based) is beyond the scope of this training gaps analysis; and
- The percentage of all interactive media producers who consider the skill as one of their greatest training needs now or in the foreseeable future.

Identify and secure investments and financing

- **Skill gap:** 48%, the largest gap
- **Skill required:** 34% say required, fewest respondents identify this as a skill necessary for their job as an interactive media producer.
- **Skills acquisition**
 - *On the job training:* 46%
 - *Self-teaching:* 36%
 - *Formal training:*46%
 - *Informal training:* 55%
- **Training offered:** A small training gap exists as less than one-half of training institutions (5) provide training in this skill. Interactive media producers in British Columbia are even less likely than most to acquire this skill as no training institution surveyed provides training for this skill. Producers identified this as the least required skill.

Ensure compliance with all laws, regulations, agreements and requirements

- **Skill gap:** 40%
- **Skill required:** 80% say required.
- **Skills acquisition**
 - *On the job training:* 60%
 - *Self-teaching:* 25%
 - *Formal training:* 40%
 - *Informal training:* 45%
- **Training offered:** Over one-half (7) of training institutions surveyed offer this skill; however, a small gap exists. Based on the responses from institutions surveyed in British Columbia, interactive media producers from this region are least likely than most to find training offerings for this skill as training is not offered for this skill.

Collaborate in developing marketing, public relations, and media relations materials

- **Skill gap:** 38%
- **Skill required:** 53% say required.
- **Skills acquisition**
 - *On the job training:* 67%
 - *Self-teaching:* 20%
 - *Formal training:* 33%
 - *Informal training:* 47%
- **Training offered:** British Columbia producers are even less likely than other producers to acquire training offerings in this skill as the institutions surveyed in this region do not offer training for this skill. A small gap exists for this skill since one-half (6) of the training institutions surveyed offer training for this skill.

Determine and measure a project's success criteria

- **Skill gap:** 38%
- **Skill required:** 70% say required.
- **Skills acquisition**
 - *On the job training:* 62%
 - *Self-teaching:* 19%
 - *Formal training:* 29%
 - *Informal training:* 48%
- **Training offered:** All of the training institutions provide training in this skill; therefore, no gap exists.

Negotiation skills

- **Skill gap:** 38%
- **Skill required:** 67% say required.
 - *On the job training:* 65%
 - *Self-teaching:* 30%
 - *Formal training:* 40%
 - *Informal training:* 60%
- **Training offered:** Training for this skill is offered at one-half (6) of the training institutions; therefore, no skills gap exists as training for this skill is offered in at least one institution per region.

Write complex business documents to persuade sophisticated audiences

- **Skill gap:** 38%, second least required skill for interactive media producers
- **Skill required:** 49% say required.
- **Skills acquisition**
 - *On the job training:* 50%
 - *Self-teaching:* 36%
 - *Formal training:* 79%
 - *Informal training:* 36%

Training offered: Training for this skill is offered at one-half (6) of the training institutions surveyed and are accessible from at least one institution per region. No significant gap exists. Interactive media producers identified this skill as the second least required.

Contribute to product promotion efforts

- **Skill gap:** 37%
- **Skill required:** 66% say required.
- **Skills acquisition**
 - *On the job training:* 58%
 - *Self-teaching:* 16%
 - *Formal training:* 32%
 - *Informal training:* 47%
- **Training offered:** A skills gap exists since only one-half (6) of the training institutions offer training for this skill. Interactive media producers based in the British Columbia region are even less likely than most to have training offerings available to them as training is not offered for this skill.

Determine production development process

- **Skill gap:** 37%
- **Skill required:** 85% say required.
- **Skills acquisition**
 - *On the job training:* 72%
 - *Self-teaching:* 32%
 - *Formal training:* 44%
 - *Informal training:* 36%
- **Training offered:** All 12 of the training institutions offer training in this skill; therefore, no gap exists.

Collaborate in developing product marketing strategy

- **Skill gap:** 36%
- **Skill required:** 60% say required.

- **Skills acquisition**

- *On the job training: 56%*
- *Self-teaching: 31%*
- *Formal training: 56%*
- *Informal training: 69%*

Training offered: One-half of training institutions (6) provide training in this skill. A small skill gap exists as interactive media producers in the British Columbia region are even less likely than producers in other regions to find training offerings for this skill as the institutions surveyed do not provide training for this skill.

Manage the content assets and rights

- **Skill gap: 35%**

- **Skill required:** 69% say required.

- **Skills acquisition**

- *On the job training: 50%*
- *Self-teaching: 11%*
- *Formal training: 39%*
- *Informal training: 67%*

- **Training offered:** Most of the training institutions (11) offer training for this skill in each region; no significant skill gap exists.

Ensure compliance of all standards during production development

- **Skill gap: 34%**

- **Skill required:** 80% say required.

- **Skills acquisition**

- *On the job training: 86%*
- *Self-teaching: 18%*
- *Formal training: 18%*
- *Informal training: 27%*

- **Training offered:** No significant gap exists for this skill as 10 out of 12 training institutions provide training in this skill and training is available to interactive media producers in each region.

Facilitation skills

- **Skill gap:** 34%
- **Skill required:** 59% say required.
- **Skills acquisition**
 - *On the job training:* 87%
 - *Self-teaching:* 40%
 - *Formal training:* 53%
 - *Informal training:* 40%

Training offered: A small gap exists for this skill. Over one-half (7) of training institutions offer training for this skill, with at least one training institution represented per region except in Québec. Interactive media producers in this region are even less likely than most to acquire training for this skill as the institutions surveyed in Québec do not offer training for this skill.

Assess feasibility and market viability

- **Skill gap:** 33%
- **Skill required:** 61% say required.
- **Skills acquisition**
 - *On the job training:* 56%
 - *Self-teaching:* 25%
 - *Formal training:* 38%
 - *Informal training:* 50%
- **Training offered:** No significant skills gap exists as most training institutions (10) offer training in this skill and most producers have access to training from at least in one institution in their region.

Leadership skills

- **Skill gap:** 32%
- **Skill required:** 81% say required.

- **Skills acquisition**
 - *On the job training: 76%*
 - *Self-teaching: 43%*
 - *Formal training: 29%*
 - *Informal training: 52%*
- **Training offered:** No skill gap exists as three-quarters (9) of the training institutions surveyed provide training for this skill and it is possible for interactive media producers to access training through at least one institution in their region.

Present, implement and manage project vision

- **Skill gap:** 32%
- **Skill required:** 93% say required.
- **Skills acquisition**
 - *On the job training: 83%*
 - *Self-teaching: 54%*
 - *Formal training: 38%*
 - *Informal training: 29%*
- **Training offered:** No significant gap exists for this skill as all of the training institutions (12) offer training for this skill and producers are more likely to acquire this skill from at least three institutions in Ontario and two institutions for all other regions.

Assess and manage risks

- **Skill gap:** 31%
- **Skill required:** 61% say required.
- **Skills acquisition**
 - *On the job training: 67%*
 - *Self-teaching: 20%*
 - *Formal training: 20%*
 - *Informal training: 67%*
- **Training offered:** Interactive media producers are more likely to receive training for this skill as there is at least one institution per region that offers such training. No significant gap exists as over one-half (8) of training institutions offer training in this skill.

Develop orientation and training for the project team

- **Skill gap:** 29%
- **Skill required:** 53% say required.
- **Skills acquisition**
 - *On the job training:* 75%
 - *Self-teaching:* 17%
 - *Formal training:* 25%
 - *Informal training:* 50%
- **Training offered:** A small training gap exists. Interactive media producers from the British Columbia region are even less likely than most to receive training for this skill as the regional training institutions surveyed do not provide training for this skill. Outside of British Columbia, over one-half (6) of training institutions provide training in this skill and producers can access training from at least one institution per region.

Assemble and consult with clients and expert working groups

- **Skill gap:** 28%
- **Skill required:** 83% say required.
- **Skills acquisition**
 - *On the job training:* 79%
 - *Self-teaching:* 26%
 - *Formal training:* 21%
 - *Informal training:* 37%
- **Training offered:** Seventy-five percent of training institutions (9) surveyed provide training in this skill. Training is available for most interactive media producers from at least one institution per region. No significant gap exists for this skill.

Respond to requests for proposals

- **Skill gap:** 28%
- **Skill required:** 67% say required.

- **Skills acquisition**
 - *On the job training: 79%*
 - *Self-teaching: 43%*
 - *Formal training: 7%*
 - *Informal training: 29%*
- **Training offered:** No training gap exists as three-quarters (9) of the training institutions surveyed provide training for this skill. Most producers have access to training from at least one institution in their region.

Determine and manage project timelines and progress

- **Skill gap: 27%**
- **Skill required:** 91% say required.
- **Skills acquisition**
 - *On the job training: 70%*
 - *Self-teaching: 25%*
 - *Formal training: 15%*
 - *Informal training: 40%*

Training offered: No training gap exists for this skill as all 12 of the training institutions offer training in this skill and training is available for producers from at least two institutions per region and up to three institutions in Ontario alone.

Make product support available to customers

- **Skill gap: 26%**
- **Skill required:** 55% say required.
- **Skills acquisition**
 - *On the job training: 82%*
 - *Self-teaching: 27%*
 - *Formal training: 9%*
 - *Informal training: 18%*

Training offered: Four training institutions surveyed offers training for this skill. Interactive media producers in the British Columbia and Québec regions are even less likely than most to find training offered for this skill; therefore, a gap exists. Institutions surveyed in these two regions do not offer training for this skill.

Determine a project's human resource needs

- **Skill gap:** 25%
- **Skill required:** 64% say required.
- **Skills acquisition**
 - *On the job training:* 62%
 - *Self-teaching:* 31%
 - *Formal training:* 15%
 - *Informal training:* 69%
- **Training offered:** No significant gap exists since all 12 training institutions provide training for this skill.

Develop project budgets

- **Skill gap:** 25%
- **Skill required:** 64% say required.
- **Skills acquisition**
 - *On the job training:* 77%
 - *Self-teaching:* 23%
 - *Formal training:* 15%
 - *Informal training:* 54%

Training offered: No significant training gap exists for this skill, as three-quarters (9) of the training institutions surveyed offer training in this skill. Interactive media producers are able to access training from at least one training institution per region.

Manage production development process

- **Skill gap:** 25%
- **Skill required:** 85% say required.
- **Skills acquisition**
 - *On the job training:* 77%
 - *Self-teaching:* 41%
 - *Formal training:* 24%
 - *Informal training:* 41%

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- **Training offered:** All 12 training institutions surveyed provide training in this skill. Interactive media producers in Ontario have access to training from at least three training institutions, while producers in all other regions can acquire training from at least two institutions in their region; therefore, no training gap exists.

Establish team performance objectives

- **Skill gap:** 24%
- **Skill required:** 59% say required.
- **Skills acquisition**
 - *On the job training:* 60%
 - *Self-teaching:* 30%
 - *Formal training:* 40%
 - *Informal training:* 50%
- **Training offered:** No significant gap exists since training for this skill is offered to producers from all 12 training institutions surveyed.

Manage project budgets

- **Skill gap:** 23%
- **Skill required:** 64% say required.
- **Skills acquisition**
 - *On the job training:* 67%
 - *Self-teaching:* 42%
 - *Formal training:* 33%
 - *Informal training:* 50%
- **Training offered:** No significant gap exists for this skill as 75% of training institutions (9) surveyed provide training to interactive media producers for this skill. Training is available to most producers from at least one institution per region.

Develop stakeholder relationships

- **Skill gap:** 22%
- **Skill required:** 58% say required.
- **Skills acquisition**
 - *On the job training:* 70%
 - *Self-teaching:* 30%

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- *Formal training: 40%*
- *Informal training: 30%*
- **Training offered:** There is no significant training gap for this skill since over one-half (8) of training institutions provide training in this skill. Interactive media producers can access training from at least one training institution per region.

Manage the creation, distribution and maintenance of product updates

- **Skill gap: 22%**
- **Skill required:** 63% say required.
- **Skills acquisition**
 - *On the job training: 91%*
 - *Self-teaching: 18%*
 - *Formal training: 27%*
 - *Informal training: 27%*
- **Training offered:** A small training gap exists since less than one-half (5) of training institutions offer training in this skill. Producers located in British Columbia and the Prairies are even less likely than most to acquire this skill as the training institutions surveyed in these regions do not offer training for this skill. Producers in other regions can acquire training from at least one training institutions (in Québec and Atlantic Canada and three institutions in Ontario).

Recruit both internally and externally to meet project human resource needs

- **Skill gap: 22%**
- **Skill required:** 57% say required.
- **Skills acquisition**
 - *On the job training: 70%*
 - *Self-teaching: 40%*
 - *Formal training: 40%*
 - *Informal training: 80%*
- **Training offered:** Less than one-half (5) of training institutions provide interactive media producers with training in this skill; therefore a gap exists for this skill. Based on the training institutions surveyed, producers in British Columbia are even less likely than others to receive training in this skill as training is not offered. Institutions in regions outside of British Columbia have access to at least one training institution per region.

Decision making skills

- **Skill gap:** 21%
- **Skill required:** 100% say required.
- **Skills acquisition**
 - *On the job training:* 94%
 - *Self-teaching:* 35%
 - *Formal training:* 35%
 - *Informal training:* 29%

Training offered: A training gap does not exist for this skill; as most of the training institutions surveyed (11) provide training in this skill. Interactive media producers from each region can expect to acquire this skill from at least one training institution per region.

Identify required project resources

- **Skill gap:** 21%
- **Skill required:** 83% say required.
- **Skills acquisition**
 - *On the job training:* 57%
 - *Self-teaching:* 43%
 - *Formal training:* 29%
 - *Informal training:* 50%
- **Training offered:** No training gap exists since all 12 training institutions surveyed offer training in this skill. Interactive media producers in each region can acquire training from at least two institutions.

Presentation skills

- **Skill gap:** 21%
- **Skill required:** 82% say required.

- **Skills acquisition**

- *On the job training: 79%*
- *Self-teaching: 36%*
- *Formal training: 36%*
- *Informal training: 50%*

Training offered: Most of the training institutions (11) provide training for this skill; therefore, no significant gap exists. Interactive media producers from each region can acquire this skill from a minimum of one training institution per region.

Manage stakeholder relationships

- **Skill gap: 20%**

- **Skill required: 56%** say required.

- **Skills acquisition**

- *On the job training: 89%*
- *Self-teaching: 11%*
- *Formal training: 22%*
- *Informal training: 22%*

- **Training offered:** No training gap exists for this skill, as over one-half (8) of training institutions provide training in this skill. Producers from each region can receive training for this skill from at least one institution.

Write project vision

- **Skill gap: 20%**

- **Skill required: 75%** say required.

- **Skills acquisition**

- *On the job training: 75%*
- *Self-teaching: 42%*
- *Formal training: 42%*
- *Informal training: 42%*

- **Training offered:** Interactive media producers from each region are able to access training for this skill from at least one training institution. Most of the training institutions (11) provide training in this skill; therefore no gap exists.

Analytical thinking skills

- **Skill gap:** 19%
- **Skill required:** 96% say required.
- **Skills acquisition**
 - *On the job training:* 86%
 - *Self-teaching:* 50%
 - *Formal training:* 43%
 - *Informal training:* 36%
- **Training offered:** No training gap exists for this skill as most training institutions (11) surveyed offer training in this skill to interactive media producers, with at least two institutions located in each region and three institutions in Ontario.

Foster creative environment

- **Skill gap:** 19%
- **Skill required:** 89% say required.
- **Skills acquisition**
 - *On the job training:* 93%
 - *Self-teaching:* 50%
 - *Formal training:* 21%
 - *Informal training:* 21%
- **Training offered:** Since all 12 training institutions surveyed provide training in this skill, no training gap exists for this skill. Training is available to interactive media producers from three institutions in Ontario and at least two institutions in other regions.

Plan, schedule and run effective meetings

- **Skill gap:** 19%
- **Skill required:** 78% say required.
- **Skills acquisition**
 - *On the job training:* 83%
 - *Self-teaching:* 33%
 - *Formal training:* 17%
 - *Informal training:* 42%

kisquared



- **Training offered:** Producers in each region are able to access training for this skill from at least one institution. No training gap exists, as 11 out of 12 training institutions offer training in this skill.

Active listening skills

- **Skill gap:** 18%
- **Skill required:** 100% say required.
- **Skills acquisition**
 - *On the job training:* 71%
 - *Self-teaching:* 36%
 - *Formal training:* 21%
 - *Informal training:* 36%
- **Training offered:** No training gap exists for this skill. Ten out of 12 training institutions provide training in this skill and interactive media producers can acquire this skill from at least one training institution per region.

Manage team performance

- **Skill gap:** 18%
- **Skill required:** 63% say required.
- **Skills acquisition**
 - *On the job training:* 67%
 - *Self-teaching:* 22%
 - *Formal training:* 22%
 - *Informal training:* 22%
- **Training offered:** No training gap exists for this skill as all 12 training institutions surveyed in each region offers training in this skill. Two training institutions per region offer interactive media producers training for this skill, while three institutions surveyed offer training in Ontario only.

Problem solving skills

- **Skill gap:** 15%
- **Skill required:** 98% say required.

- **Skills acquisition**
 - *On the job training: 92%*
 - *Self-teaching: 58%*
 - *Formal training: 67%*
 - *Informal training: 42%*
- **Training offered:** Interactive media producers from three regions can acquire training in this skill from a minimum of two training institutions and three institutions in the Ontario region alone. All 12 training institutions provide training in this skill; therefore, no training gap exists for this skill.

Teamwork skills

- **Skill gap:** 14%
- **Skill required:** 96% say required.
- **Skills acquisition**
 - *On the job training: 100%*
 - *Self-teaching: 36%*
 - *Formal training: 27%*
 - *Informal training: 36%*
- **Training offered:** There is no existing training gap for this skill as 11 out of 12 training institutions this skill. At least two training institutions per region offer training with the exception of Québec (one institution only).

Producer profile

This section contains a profile of the interactive media producers who participated in this study. Producers were identified through membership lists gathered on interactive or new media websites.

Province of origin

Figure 22 below shows the regional distribution of study respondents

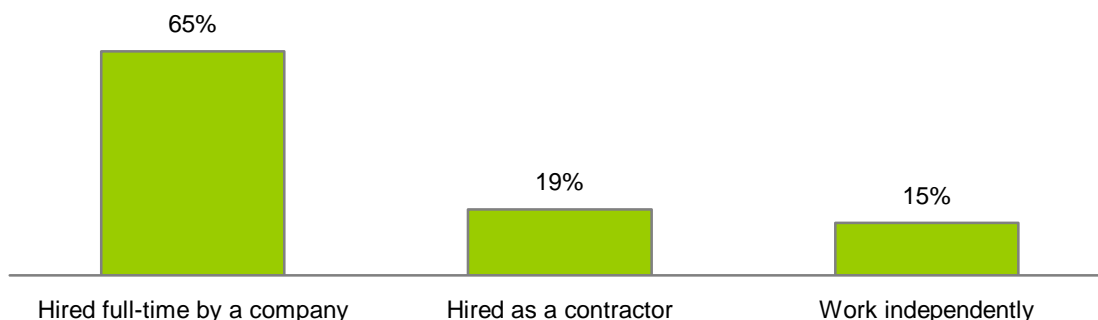
Figure 22 RESPONDENT PROFILE: DISTRIBUTION BY PROVINCE

Province	%
Prairies (Alberta, Saskatchewan, Manitoba)	36%
Ontario	22%
Québec	21%
British Columbia	14%
Atlantic Canada (Prince Edward Island, Newfoundland, New Brunswick)	7%

Type of employment

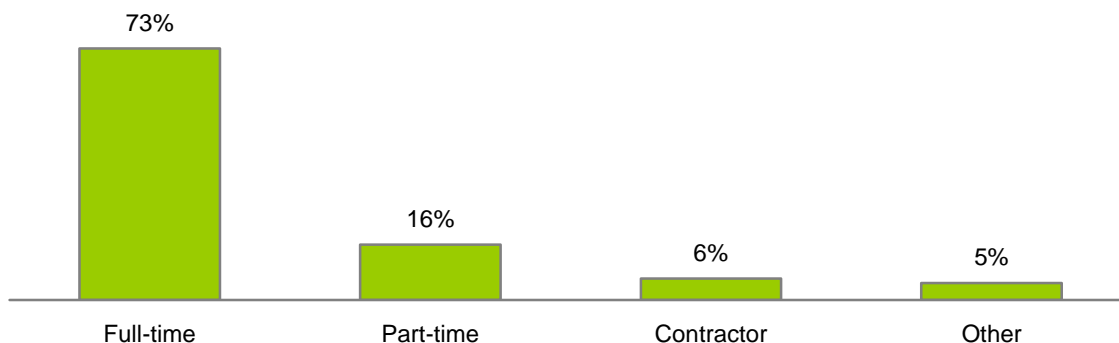
The majority of interactive media producers (65%) work full-time, nearly one-fifth (19%) work as contractors and over 15% work independently (see Figure 23).

Figure 23 HOW INTERACTIVE MEDIA PRODUCERS ARE EMPLOYED



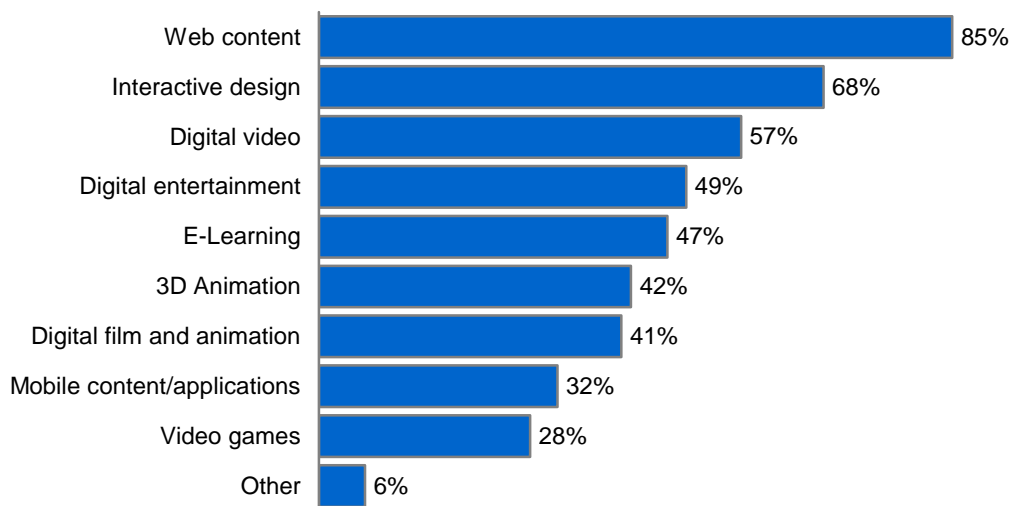
Producers indicated whether their employment directly related to interactive media production was full-time, part-time, or best described in some other arrangement. Nearly three-quarters (73%) work full-time as interactive media producers, 16% work part-time and less than one-tenth (6%) on a contract basis. The remainder of producers works in some other arrangement (see Figure 24 below).

Figure 24 EMPLOYMENT STATUS



Interactive media producers interviewed were presented with a list of interactive media types and asked which they produce. As Figure 25 below illustrates, the majority of those surveyed produce web content (85%), interactive design (68%) and digital video (57%). Less than one-third produce mobile content/applications (32%) and video games (28%).

Figure 25 TYPES OF INTERACTIVE MEDIA PRODUCED

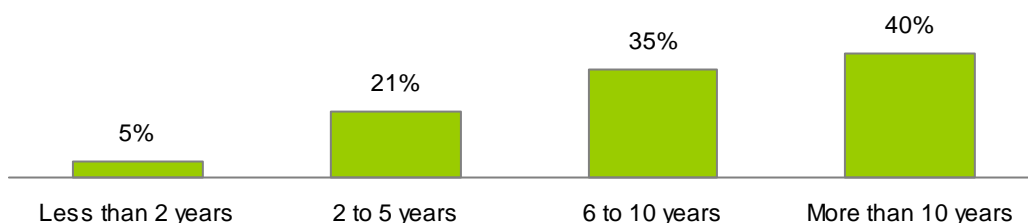


Note: Percentages exceed 100% because multiple responses were accepted.

Time spent in the industry

Interactive media producers were asked how long they have been producing interactive media. Two-fifths (40%) of those surveyed have been producing for more than ten years. Only 5% have been involved for less than two years (see Figure 26).

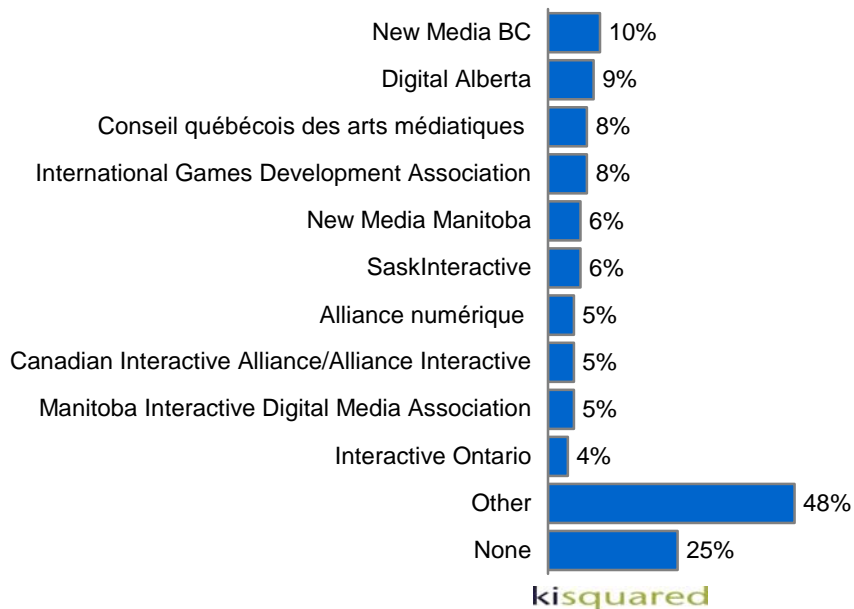
Figure 26 NUMBER OF YEARS INVOLVED IN PRODUCING INTERACTIVE MEDIA



Association membership

Those surveyed were asked what professional associations they belonged to. Producers tend to join regional associations in their own province (Figure 27 below). One-quarter do not belong to any other associations. A complete list of the other professional associations identified by interactive media producers is found in *Appendix A—Marginals*.

Figure 27 MEMBERSHIPS IN PROFESSIONAL ASSOCIATIONS



Appendix A – Marginals

N = 81

INTERVIEWER: _____ SURVEY # _____

REGION:	Atlantic 7%	BC..... 14%	Ontario 22%
	Prairies 36%	Québec 21%	Territories 0%

TYPE: Employer..... 54% Employee 46%

NAME: _____ ID CODE _____

COMPANY NAME (IF APPLICABLE): _____

PHONE: (____) _____ - _____ EXT: _____

May I please speak to _____?

ANSWERING MACHINE MESSAGE: Hello, my name is _____ and I'm calling on behalf of the CHRC—the Cultural Human Resources Council—about the national training study for interactive media producers. Your name was given to us as an interactive media producer. I would really appreciate it if you could return my call at 1-888-950-8002. Also, let me assure you I am conducting research on behalf of the CHRC and this is not a sales call. I look forward to speaking with you soon. And again, the toll free number is 1-888-950-8002. Thanks!

Hello, my name is _____ and I'm calling on behalf of the Cultural Human Resources Council, about a national training study for interactive media producers. We would like to discuss interactive media with people *in* the industry, and are looking to speak to someone who can describe their own experiences with skill building and training. Would that be you? **IF NO, ASK WHO WOULD BE APPROPRIATE RESPONDENT AND RECORD CONTACT INFO.**

IF YES... This survey should only take about 12 minutes—do you have time right now to complete this survey? **IF NOT, ASK IF THERE IS A BETTER TIME AND ARRANGE TO CALL BACK.**

Before we begin I would just like to assure you this information will never be shared with any government agency. All the information gathered through this study is strictly confidential. We guarantee your anonymity. We will be asking questions about your own experiences, but no individual or business names will be attached to the research findings, and the report submitted to the CHRC will only discuss the results of the survey as a whole.

This call may be monitored for quality assurance.



[INTERACTIVE MEDIA PRODUCER QUALIFICATION] For the purposes of this study, an interactive media producer is defined as someone who manages the vision and the strategy for the design development, plans, designs, and develops a variety of interactive components for digital media; ensures that the business objectives are understood and followed by project principals and oversees all phases of the project life cycle (from initiation and development to production and maintenance). Interactive media producers work in or with occupations such as 3D animators, application designers, games designers, graphic artists, new media or digital media artists, mobile content / applications, program designers or systems architects. They are self-employed, independent contractors (producers) or salaried, or employed by small or large businesses such as new media or digital media production companies, governments, advertising, audiovisual, public relations, publishing or graphic design firms. Do you consider yourself to be an interactive media producer engaged in these types of activities?

Yes 100%
No..... 0%

Do you play the role of employer or employee in your current position?

Employer (including self-employed) 68%
Employee 32%

Which of the following best describes how you are employed? Are you...

Hired full-time by a company 65%
Hired as a contractor by a company..... 19%
Or, do you work independently?..... 15%

When thinking about your employment directly related to producing interactive media, would you describe your interactive media employment as full-time, part-time or is it best described in some other arrangement?

Full-time..... 73%
Part-time..... 16%
Contractor 6%
Other 5%

How long have you been involved in producing interactive media?

Less than 2 years 5%
2 to 5 years 21%
6 to 10 years 35%
More than 10 years..... 40%

Which of the following types of interactive media do you produce?

3D animation.....	42%
Web content	85%
Digital entertainment	49%
Digital film and animation.....	41%
Digital video.....	57%
E-Learning	47%
Interactive design.....	68%
Mobile content / applications.....	32%
Video games.....	28%
Other	6%

What professional associations do you belong to?

New Media BC	10%
Digital Alberta	9%
Conseil québécois des arts médiatiques.....	7%
International Games Development Association	7%
New Media Manitoba	6%
SaskInteractive.....	6%
Alliance numérique.....	5%
Canadian Interactive Alliance / Alliance interactive	5%
canadienne.....	5%
Manitoba Interactive Digital Media Association.....	5%
Alberta Motion Picture Industries Association.....	4%
Interactive Ontario	4%
International Association of Business Communicators (IABC)	2%
OnScreen Manitoba	2%
Professional Engineers Ontario.....	2%
Society of Graphic Designers of Canada (GDC).....	2%
Advertising Association of Winnipeg.....	1%
Association des producteurs de films et de télévision du Québec (APFTQ).....	1%
Association of Registered Graphic Designers of Ontario.....	1%
BC Chamber of Commerce.....	1%
Bluetooth Special Interest Group (SIG).....	1%
Canadian eLearning Enterprise Alliance (CeLEA)	1%
Canadian Information Processing Society (CIPS).....	1%
Canadian Marketing Association.....	1%
Certified Management Accountant of Ontario	1%
College of the North Atlantic Alumni Association.....	1%
Company of Women	1%
Conférence des recteurs et des principaux des universités du Québec (CREPUQ).....	1%
Documentary Organization of Canada (DOC)	1%
In House Magazine	1%
Interactive Advertising Bureau (IAB)	1%
International Association of Technology, Education and Development.....	1%
Language Industry Association (AILIA).....	1%
Manitoba Motion Picture Industry Association.....	1%
Megavolt Design Inc.....	1%
Motion Picture Association.....	1%
New Media Consortium.....	1%
Canadian Network of Innovative Education (CNIE).....	1%

Nouveau Cinema.....	1%
Oakville Chamber of Commerce and Barry Chamber of Commerce	1%
Project Management Institute (PMI)	1%
Réseau d'informations scientifiques du Québec (RISQ).....	1%
Saskatchewan Writers Guild.....	1%
Toy Industry Association.....	1%
Trans-Canada Advertising Agency Network (T-CAAN)	1%
Winnipeg Chamber of Commerce	1%
Selkirk and District Chamber of Commerce.....	1%
Winnipeg Film Group	1%
Wired Women.....	1%
Entertainment Software Association	0%
Interactive Media Alliance of P.E.I. (IMA).....	0%
None	25%
Other	6%
Don't know / Refused	1%

GO TO SKILLS SHEET NOW

Now, thinking about the skills we just discussed, are there any skills we have missed, or that you think may be required in future? Anything else? Anything else?

Have you ever participated in a university or college program for interactive media producers?

Yes 38%
No..... 61%
Don't know / Refused 1%

What is the name of the institution where you took this program?

What is the name of the program? What was your major or concentration?

And what was the duration of this program?

In the past year, have you attended any professional development conferences or workshops in the field of interactive media production?

Yes 53%
No..... 47%

And what skill or skill set did you learn? Anything else? Anything else?

Who offered the training? **CONFIRM NAME AND SPELLING** So that was...

How many days or partial days were you in this training? **(BASED ON AN 8 HOUR DAY)**
N= 43

Mean = 95.38

Median = 2.50

Less than 2 days	36%
2 days to less than 3 days.....	21%
3 days to less than 4 days.....	13%
4 days to less than 5 days.....	15%
5 days or more.....	15%

When thinking about interactive media production training, what are your greatest training needs right now or in the foreseeable future? Anything else? Anything else?

When thinking about all the training and educational offerings available to interactive media producers, which programs or courses do you consider the best and that you absolutely recommend to others? And what was the name of the program? And what was the institution or association that offered it?

Now let's turn to job functions and skills. For each one of the following, please tell me if this skill is required *in general* to perform your job as an Interactive Media Producer. Next, please tell me whether you currently have it, or whether you need to acquire it. Then I will ask where you learned this skill.

SERIES A Skill	Do you need this skill to perform your job? A			Do you have this skill or need to acquire this skill? Q2			Where did you learn this skill? Where do you expect to learn this skill?					
	Yes	No	DK REF	Have	Need	DK REF	On the job	Self-taught	Formal	Informal / conference workshop	Innate	DK REF
SS1 Write project vision	74%	25%	1%	92%	20%	0%	67%	45%	37%	23%	0%	0%
SS2 Present, implement and manage project vision	93%	7%	0%	87%	32%	0%	75%	45%	36%	21%	0%	0%
SS3 Determine production development process	84%	15%	1%	78%	37%	0%	75%	38%	40%	25%	0%	0%
SS4 Manage production development process	85%	15%	0%	87%	25%	0%	68%	41%	36%	20%	0%	0%
SS5 Ensure compliance of all standards during production development	79%	20%	1%	83%	34%	0%	78%	31%	27%	14%	0%	0%
SS6 Foster creative environment	89%	11%	0%	94%	19%	0%	61%	61%	28%	19%	1%	0%
SS7 Assess feasibility and market viability	59%	38%	3%	85%	33%	0%	58%	31%	29%	19%	0%	0%
SS8 Assemble and consult with clients and expert working groups	83%	17%	0%	81%	28%	0%	78%	39%	13%	15%	2%	0%
SS9 Identify and secure investments and financing	33%	64%	3%	59%	48%	0%	52%	33%	30%	30%	0%	7%

SERIES B Skill	Yes	No	DK REF	Have	Need	DK REF	On the job	Self-taught	Formal	Informal / conference workshop	Innate	DK REF
SS10 Respond to requests for proposals	67%	33%	0%	87%	28%	0%	74%	41%	19%	15%	0%	2%
SS11 Determine and measure a project's success criteria	69%	30%	1%	73%	38%	0%	63%	30%	27%	20%	0%	0%
SS12 Identify required project resources	83%	17%	0%	84%	21%	0%	75%	30%	21%	13%	0%	2%
SS13 Determine and manage project timelines and progress	91%	9%	0%	85%	27%	0%	77%	28%	31%	18%	0%	0%
SS14 Assess and manage risks	61%	38%	1%	86%	31%	0%	76%	31%	20%	27%	0%	0%
SS15 Develop project budgets	64%	36%	0%	90%	25%	0%	75%	29%	29%	19%	0%	0%
SS16 Manage project budgets	64%	36%	0%	90%	23%	0%	73%	37%	37%	19%	0%	0%
SS17 Determine a project's human resource needs	64%	36%	0%	83%	25%	0%	73%	31%	17%	23%	0%	0%
SS18 Recruit both internally and externally to meet project human resource needs	57%	43%	0%	89%	22%	0%	78%	39%	17%	24%	0%	0%
SS19 Develop orientation and training for the project team	52%	47%	1%	79%	29%	0%	74%	24%	17%	21%	0%	0%

SERIES C Skill	Do you need this skill to perform your job?			Do you have this skill or need to acquire this skill?			Where did you learn this skill? Where do you expect to learn this skill?					
	Yes	No	DK REF	Have	Need	DK REF	On the job	Self-taught	Formal	Informal / conference workshop	Innate	DK REF
SS20 Manage the content assets and rights	67%	30%	4%	80%	35%	0%	65%	22%	32%	26%	0%	2%
SS21 Establish team performance objectives	57%	40%	4%	80%	24%	0%	72%	33%	28%	20%	2%	2%
SS22 Manage team performance	62%	36%	3%	86%	18%	0%	74%	30%	20%	12%	0%	0%
SS23 Develop stakeholder relationships	57%	42%	1%	85%	22%	0%	72%	39%	13%	9%	0%	0%
SS24 Manage stakeholder relationships	56%	43%	1%	89%	20%	0%	73%	40%	11%	13%	2%	0%
SS25 Collaborate in developing product marketing strategy	58%	40%	3%	85%	36%	0%	60%	36%	36%	30%	2%	2%
SS26 Collaborate in developing marketing, public relations, and media relations materials	51%	46%	4%	78%	37%	2%	71%	32%	46%	29%	0%	2%
SS27 Contribute to product promotion efforts	64%	33%	3%	77%	37%	0%	73%	31%	31%	23%	0%	0%
SS28 Make product support available to customers	52%	43%	5%	79%	26%	0%	79%	33%	17%	5%	0%	0%
SS29 Manage the creation, distribution and maintenance of product updates	62%	36%	3%	90%	22%	0%	80%	24%	22%	10%	0%	0%
SS30 Ensure compliance with all laws, regulations, agreements and requirements	64%	35%	1%	77%	40%	0%	71%	25%	29%	21%	0%	2%
SS31 Plan, schedule and run effective meetings	78%	22%	0%	89%	19%	0%	81%	33%	22%	21%	2%	0%

SERIES D Skill		Yes	No	DK REF	Have	Need	DK REF	On the job	Self- taught	Formal	Informal / conference workshop	Innate	DK REF
SS32	Active listening skills	100%	0%	0%	90%	17%	1%	57%	58%	19%	15%	4%	3%
SS33	Presentation skills	82%	19%	0%	91%	21%	0%	59%	53%	35%	27%	2%	0%
SS34	Negotiation skills	65%	32%	3%	77%	38%	0%	64%	49%	25%	32%	2%	0%
SS35	Write complex business documents to persuade sophisticated audiences	46%	48%	6%	78%	38%	0%	65%	38%	46%	30%	0%	0%
SS36	Facilitation skills	54%	38%	7%	89%	34%	0%	71%	48%	32%	23%	2%	0%
SS37	Leadership skills	80%	19%	1%	89%	32%	0%	69%	45%	19%	28%	2%	0%
SS38	Problem solving skills	98%	3%	0%	98%	15%	0%	75%	56%	46%	22%	3%	0%
SS39	Decision making skills	100%	0%	0%	91%	21%	0%	74%	48%	33%	21%	4%	0%
SS40	Teamwork skills	96%	4%	0%	95%	14%	0%	74%	50%	32%	19%	4%	0%
SS41	Analytical thinking skills	96%	4%	0%	94%	19%	0%	64%	51%	46%	17%	1%	1%

Appendix B: Training offerings for interactive media producers

This appendix contains information on programs recommended by respondents that offer training in interactive media producing skills. Programs were researched on-line, and some telephone interviews were conducted to confirm program information and solicit new information regarding specific interactive media producer training.

Formal training

This section provides brief descriptions of universities and colleges across Canada that provide training for interactive media producers. While the EWG has adopted the term “interactive” many institutions are still using variations of this term such as “new media” or “multimedia.” Training programs and courses listed are listed because they are directly related to the definition of interactive media producer. A website link to each program is also provided.

Alberta

Red Deer College

The Multimedia Web Developer Certificate Program is offered through the Continuing Education program and is a five month, full-time program. Students learn the concepts of multimedia design, the skills to integrate various types of digital media to produce dynamic designs and publish multimedia to the Web, CD and DVD, and the ability to use technology to meet industry marketing, advertising and design objectives. They develop a digital portfolio to showcase their skills as a New Media Entrepreneur to prospective employers or clients.

http://www.rdc.ab.ca/future_students/continuing_education/computer_training/mmwd/index.html

Grande Prairie Regional College

The college offers a two-year diploma program in Visual Arts - Interactive Digital Design. Students can opt to take the program through a one-year certificate program.

http://www.gprc.ab.ca/departments/finearts/program_details.php?PID=35&r=a

GURU Digital Arts College

Students take courses over a six-month period to learn how to use Mac and PC software. They gain proficiency using Adobe software, learn industry standard techniques for the Internet following the World Wide Web Consortium and learn fundamental content creation including basic drawing, photography, videography and creative project management.

<http://www.gurudigitalarts.com/index.html>

Alberta College of Art and Design

The college offers a new media Bachelor of Fine Arts Degree in the area of Media Arts and Digital Technologies (MADT). Students explore the creative use of emerging electronic, digital, interactive and motion media, in the wide range of hybrid areas arising out of the new technologies. This includes interactive art, electronically supported performance and installation, sound, web, locative, mobile and motion media.

http://www.acad.ab.ca/media_arts_and_digital_technologies.html

DevStudios Digital Education

DevStudios offers three full-time diploma programs in the areas of Design and Motion Graphics, 3D Animation and Digital Audio Production. Students taking the design program study for five months and receive a Design and Motion Graphics diploma. Students taking the animation program study for six months and receive a 3D Animation diploma. Students taking the digital production program study for five months and receive a Diploma and ProTools Operator certificate.

<http://www.mydeveducation.com>

Southern Alberta Institute of Technology (SAIT) Polytechnic

SAIT offers a two-year diploma in New Media Production and Design. Students receive training in multimedia skills and learn how to use tools and techniques for areas such as web design and development, corporate presentations and communications, audio and music production, educational design, animation, simulations and game design. The program emphasizes hands-on training, developing projects for clients, following industry standards and developing a portfolio. Courses include Interactive Programming, Interactive Media Authoring and New Media Production.

<http://www.sait.ab.ca/pages/cometosait/academic/diplomas/anmpd.shtml>

Northern Alberta Institute of Technology (NAIT)

NAIT offers a two-year diploma for their Digital Media Design program. Students study for three semesters and complete a work practicum in their fourth semester at a company in the media industry. They study theory, receive extensive practice and get hands-on experience combining interactive authoring with 3D modeling and animation, digital audio and video, applied graphics and design concepts as well as business and communication skills.

<http://www.dimd.nait.ca/index.php>

Grant McEwan College

The college offers training in their Design Studies program in different areas of visual communication. Design Studies is a three-year program; students must take a prerequisite program for one-year (Design Foundations Certificate) prior to entering the program. The program offers specialization in one of five areas: photography, motion image, illustration, exhibit presentation and digital media.

<http://www.macewan.ca/web/pvca/visual/home/index.cfm>

Keyano College

The college offers a two-year Visual Art and Design diploma through the Visual and Performing Arts Department.

<http://www.keyano.ca/Programs/default.asp?credentialId=9>

University of Lethbridge

The University offers a Diploma in the Multimedia Production program, offered in the School of Media and Design at the Centre for Applied Arts and Sciences. Students can choose to concentrate in a number of areas including Video and Motion Graphics, Web and Interactive Programming or e-Learning Technologies.

http://www.lethbridgecollege.ab.ca/index.php?option=com_content&task=view&id=146&Itemid=165

British Columbia

British Columbia Institute of Technology

The school offers a certificate in New Media and Web Design through the New Media Design and Web Development program. Throughout the 52 week program, students learn motion graphics and visual effects, JavaScript, website architecture, DVD authoring, audio, project planning and management, visual design, web graphics and Internet law. Using various application software programs, students complete several projects for their interactive portfolio.

<http://www.bcit.ca/study/programs/6415smcert>

Capilano University

The university offers a two-year program in Interactive Media and Web Design. During the first year of the program students learn the necessary skills in planning, designing and implementing websites. In the second year, students specialize in one of three areas: web design and development, disc-based interactive multimedia and e-Learning. The program provides students with a six-week work practicum.

<http://www.capilanou.ca/programs/interactive-design.html>

College of New Caledonia

The college offers a two-year diploma for New Media Communications and Design. The full-time program provides students with related interactive media training through the following courses: Multimedia design and technology I, II; Animation, video and sound; and Web I, II.

http://www.cnc.bc.ca/CNC_Programs/NMCD.htm

Emily Carr University of Art and Design

The university offers a Bachelor of Media Arts degree where students can major in one of two areas: Animation and Film or Video and Integrated Media. Post-graduate degrees include a Masters of Applied Arts Degree in Visual Arts and a Masters of Digital Media Program (MDM) (20 months). Through the Centre for Digital Media, students in the MDM program learn alongside those working in the international games and digital media industry and participate in a paid summer internship.

<http://www.ecuad.ca/studies/courses/DIVA>

<http://mdm.gnwc.ca>

Gulf Islands Film and Television School

The Gulf Islands School offers training in a variety of interactive media courses. Courses such as DVD Authoring, Production administration and distribution, Computer/3D animation and Digital video effects.

http://www.giftsfilms.com/index.cfm?page_name=courses_descriptions

Langara College

The College offers programs that are related to interactive media production through the Continuing Education program. Two certifications: a Web Publisher Certificate and a Web Developer Certificate—Open Source are offered in the Computer Technology department. Students can receive their certificate in Digital Film Production through the Creative and Applied Arts department. The program offers training in digital film or documentary production.

<http://www.langara.bc.ca/cs/>

North Island College

The college offers interactive media training in four different programs: Web Design Certificate, Web Development Diploma, Communication Design Diploma and Advanced Communication Design Diploma. Students registered in the Communication Design program learn design and marketing aspects of interactive media as well as the fundamentals offered in the Web Design certificate program, while the Advanced Communication Design Diploma program builds on the skills of an interactive media producer.

<http://www.nic.bc.ca/calendar/>

Royal Roads University

The University offers a Masters in Business Administration Degree in Digital Technology Management. Prior to consideration for the program, potential students should have specific industry experience as part of their work history as well as an undergraduate degree. The program is offered in six sessions through distance education along with three 3-week residency periods where students are required to take courses at the University. The program takes two years to complete.

<http://www.royalroads.ca/programs/faculties-schools-centres/faculty-management/master-business-administration/digtech-mba/>

Selkirk College

The college offers a two-year diploma program for Digital Arts and New Media through the School of Digital Media and Music. Students receive training in the design, development and production of new media. They gain a solid foundation in traditional and graphic arts, web site development, video and sound production, animation and digital media, as well as learn advanced production techniques, effective project management and the new media business environment.

<http://www.selkirkmedia.com>

Simon Fraser University (SFU)

Students attending Simon Fraser University's Interactive Arts and Technology program, offered through the School of New Media, can receive their degree in one of four programs: a Bachelor of Arts degree with major in interactive arts and technology; Bachelor of Arts (honors) in interactive arts and technology; Bachelor of Science with major in interactive arts and technology; and Bachelor of Science (honors) in interactive arts and technology. Students also have the option of minoring in interactive arts and technology. Students can specialize in design, media arts or informatics.

<http://www.siat.sfu.ca>

Thompsons Rivers University

The two-year Digital Arts and Design Program is offered through the School of Advanced Technologies and Mathematics. Students are prepared for employment in the diverse field of computer graphics and multimedia, learn a variety of computer graphic software applications and develop visual communications and problem solving skills. Created in 1985, the program has evolved to meet the changing needs of the technology and students involved in the program.

<http://www.tru.ca/advtech/daad.html>

Trinity Western University

The Bachelor of Arts Degree in Communications is offered through the Faculty of Professional Studies and Performing Arts. Students who study in the communications program specialize in one of four streams, with the Media stream focused on the training needs for interactive media producers. The Media stream focuses on how media relates to society and how to critique media mindfully – it provides students with hands-on training in digital technologies for web development, digital gaming and filmmaking.

<http://www.twu.ca/academics/fpspa/communications/courses-streams.html>

University of British Columbia

The university offers a part-time and full-time certificate in Multimedia Studies through the UBC Continuing Studies Department. The full-time program is 16 weeks and includes an opportunity for a three-week internship. It allows students to learn the design concepts and interface design skills before applying them to a web site, CD-ROM, intranet, informational kiosk, Digital Versatile Disc (DVD) or any other emerging technology.

<http://www.tech.ubc.ca/multimedia/index.html>

kisquared



Vancouver Film School

The Vancouver Film School offers training for interactive media producers through the one-year Digital Design program. This teaches students traditional graphic design, interactive or web design, motion design and video production. Specialized training for producers are offered through the following programs: 3D Animation and Visual Effects, Digital Character Animation, Game Design, Sound Design for Visual Media and Foundation Visual Art and Design.

<http://www.vfs.com/fulltime.php>

Manitoba

Red River College

The two-year Digital MultiMedia Technology diploma program offers training in technology, techniques and philosophy of graphic and new media / web design. Students learn design instruction, web and interactive technologies and academic courses. The program offers three areas of specialization: Web Design, Animation and Audio/Video Production. They develop the technical skills and knowledge essential to preparing and presenting images in ways that are both aesthetically and technically proficient.

Also offered is a two-year diploma program in Graphic Design and a one-year advanced diploma program in Graphic Design—Advanced where students major in one of five areas: Advanced Communication Design, New Electronic Media, Production Management, Advanced Prepress Production and Advanced Illustration.

<http://dmt.rrc.mb.ca>

<http://me.rrc.mb.ca/Catalogue/ProgramInfo.aspx?ProgCode=GRAAF-AD&RegionCode=WPG>

Collège Universitaire de Saint-Boniface

The two-year Multimedia Communication program, offered through the Technical and Vocational School, is a full-time program that offers interactive multimedia training, internship opportunities and business training.

<http://www.ustboniface.mb.ca/cusbf/calendrier/horairecoursETP.shtml>

Assiniboine Community College

The college offers training for interactive media producers through the two-year Media Production program. Students choose from two specializations: Communications or Audio, Video and Multimedia. Training related directly to interactive media production is offered through computer graphic design, imaging and multimedia production skills preparing them for work in the fields of multimedia, combining audio, images, text and video for new interactive media such as CD-ROMs, interactive kiosks, Internet and interactive learning and entertainment software.

<http://public.assiniboine.net/Default.aspx?tabID=84&prgID=186>

Ontario

Canadore College

The college offers a one-year Interactive Multimedia post-graduate program, offered through the Communication Arts program. Students work with leading software applications such as 3D Studio Max, Photoshop, Flash, Dreamweaver, Audition, Encore and MS Project, as well as design, test and create interactive activities and computer games.

<http://www.canadorec.on.ca/ProgramInfo/FullTime/CommunicationArts/010107.cfm>

Conestoga

Students who complete the Digital Media program receive a post-graduate certificate. The program is 24 weeks long and provides training in graphics, Web authoring and multimedia applications.

<http://www.conestogac.on.ca/fulltime/programoverview.jsp?SchoolID=2&ProgramCode=1015&v=0801>

St. Clair College

The college offers specialized training for interactive media producers via a three-year program for Animation—Tradigital, focusing on teaching students how to design and animate characters and environments for traditional and 3D projects for a variety of mediums including television, film and video games. The three-year Web Communications Development diploma program teaches students how to communicate clearly and concisely about business technologies and present, implement and maintain new web-based solutions to help organizations stay abreast of change and maintain their competitive edge.

http://www.stclaircollege.ca/programs/postsec/windsor_index.html

Sheridan College

Sheridan College is a diverse school offering training for interactive media producers in a number of specialty areas. Students studying in the Visual Arts and Design department can choose to specialize from a variety of programs in Computer Animation (Digital Character Animation and Digital Visual Effects) and Web Design.

<http://www1.sheridaninstitute.ca/programs/0910/>

Seneca College

The College offers training for interactive media producers in the two-year Digital Media Arts program where students learn how to design, implement and manage digital graphics and audio for interactive multimedia applications, including applications for the Internet. Related specialty areas include programs in 3D animation, Animation, Game art and animation, Interactive marketing and Visual effects for film and television.

<http://www.senecac.on.ca/fulltime/DMA.html>

Ryerson Polytechnique University

The University offers training for the new media field through the School of Image Arts, offered in the Faculty of Communication and Design. In the four-year program, graduates receive their Bachelor of Fine Arts degree. Students learn how to work with software applications as well as produce projects using new media.

<http://imagearts.ryerson.ca/newmedia>

Ontario College of Art and Design

Offered through the graduate studies program, the college's Interdisciplinary Master's in Art, Media and Design program challenges students to research and produce creative works that combine art, design and cross-disciplinary academic studies to create new, hybrid forms of visual and social research and production. The program is offered full-time and completed in two-years.

http://www.ocad.ca/programs/graduate_studies/interdisciplinary_masters.htm

McMaster University

The Department of Communication Studies and Multimedia looks at New Media, Digital Culture, Language and Social Life, Cultural Studies, Mass Communication and Performance Studies. The University offers a Combined Honours degree in Multimedia. Course material offered relating to interactive media production includes creating multimedia works for CD-ROM or for the World Wide Web, communicating clearly through multimedia and displaying sensitivity to design issues around multimedia, creating and analyzing digital images, digital audio and digital video, working in teams and managing multimedia projects and setting up and maintaining a multimedia microcomputer.

<http://csmm.humanities.mcmaster.ca/interactive/index.htm>

Max the Mutt Animation School

The school offers diplomas for specialized training in four programs: Classical and computer animation (three-year diploma), 3D computer animation, Graphic storytelling and Concept art for animation and video games (four-year diploma).

<http://www.maxthemutt.com/default.asp>

Loyalist College

Loyalist College offers training in specialized areas such as the three-year Animation diploma program and the one-year Media experience program. Students can take the three-year Television and New Media program where they gain skills from television production to DVD authoring and web streaming. Hands-on, equipment-intensive training prepares graduates for the industry and two internships help students gain essential on-the-job experience.

<http://www.loyalistcollege.com/programs-and-courses/full-time-programs/television-and-new-media-production>

Lambton College of Applied Arts and Technology

The college offers specialized training in the areas of Internet Media Specialist / Web Design. Students can study interactive media production related courses such as Design principles and theory and Graphic management with Macromedia Fireworks.

http://www.lambton.on.ca/Programs/program_html?PROGCODE=WEBD&LASTRECORDID=1879

La Cité collégiale

La Cité offers training through their Arts and Design faculty in specialized areas such as 3D Animation and Graphic Arts.

<http://www3.lacitec.on.ca/159.html>

Humber College

Humber College provides a variety of training for interactive media producers through the School of Media Studies and Information Technology. Students can learn the fundamental software skills as well as the business knowledge that is needed for independent producers. The four term Media Communications Diploma provided graduates with a cooperative placement and the skills to use web-based tools and fill cross-functional roles in the marketing and communications departments of organizations. Another offering is the four term Multimedia Design and Production Technician Diploma, which provides students with the technical and creative skills needed for entry-level employment in the fields of web design and interactive content development. A cooperative placement is also part of the course curriculum.

<http://postsecondary.humber.ca/proglist.htm>

Georgian College

The college offers students specialty courses in the field of interactive media production. Programs offered through the Design and Visual arts studies include Web animation and design and Graphic design production.

<http://www.georgianc.on.ca/academics/programs/index.php?catid=9#9>

George Brown College

George Brown College offers postgraduate courses in digital design for two areas: Advanced Digital Design and Game Development. The Digital Design post-graduate program is one year long and offered through the School of Design. The program addresses a growing need for a new skill set in the industry and combines design education with software instruction and hands-on workshops to configure interactive design strategies using existing and emerging display technologies.

The School of Design offers a three-year advanced diploma course in Game design which combines skill sets to create 2D and 3D interactive games for multiple platforms as well as develop skills in game design and production, project management and game testing. The Game Design program provides practitioners with design experience or relevant education of the necessary skills needed to enter the gaming industry.

<http://www.georgebrown.ca/Marketing/FTCal/alphindx.aspx>

Fanshawe College

The college's School of Contemporary Media offers students training in areas such as multimedia and animation. Programs offered include

- Multi Media Design and Production (two-year diploma)
- Media Theory and Production, a Collaborative Degree / Diploma Program with University of Western Ontario (three-year Bachelor of Arts degree in Media, Information and Technoculture (MIT) and a two-year college diploma)
- Advanced Multimedia program (one-year college certificate), which focuses on web site design, interactive media and new media technologies.
- 3D Animation and Character Design (one-year certificate program), which teaches skills such as creating 3D animated characters and animated short films, 3D modeling and animation, as well as concept development, team work and project management.

<http://www.fanshawec.ca/EN/media/11821/programs.asp>

Confederation College of Applied Arts and Technology

Students attending the college can receive a three-year advanced diploma in Multimedia Production, offered through the Media Arts department. Courses offered include design, computer programming, project management and various software applications. Throughout the program, students build a portfolio, work on a major, real-world showcase project (semester five) and in the final semester, participate in a 16-week work placement.

<http://www.confederationc.on.ca/multimedia>

Centennial College

The School of Communication, Media and Design offers a postgraduate certificate in Interactive Digital Media (12 months). Students produce interactive media for multiple platforms such as the Internet, social networking sites, mobile applications and interactive installations. They also participate in a field placement as part of the curriculum.

Specialty certificate programs in the areas of Digital animation (14 months) and Game design and development (two-year diploma) are also offered.

<http://www.centennialcollege.ca/thecentre/interactive>

<http://www.centennialcollege.ca/thecentre/Programs>

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Carleton University

Through the Faculty of Engineering and Design, School of Information Technology, Carleton University and Algonquin College offer a joint Bachelor of Information Technology Degree that offers specialization in two areas: Interactive Multimedia and Design (IMD) and Network Technology (NET). This degree/diploma combination for the IMD program teaches multidisciplinary education in areas such as computer animation and video effects, game design and development, virtual reality systems, graphic design, 3D visualization, human computer interaction (HCI) and electronic commerce.

<http://bitdegree.ca>

Algonquin College

In addition to the joint BIT degree with the University of Carleton, Algonquin College offers a two-year diploma for Interactive Multimedia Development. The program focuses on hands-on training through courses in web development, digital imaging, authoring, animation, photography and video. It also teaches the main elements of multimedia planning and development.

http://extraweb.algonquincollege.com/fulltime_programs/programOverview.aspx?id=6149X01FWO&

The college also offers a one-year Interactive Media program that teaches the development of rich-media applications. Students acquire skills to design and build web sites with Adobe Flash and several web-based coding systems.

http://extraweb.algonquincollege.com/fulltime_programs/programOverview.aspx?id=0300X01FWO&

Algoma University College

Algoma offers a post-graduate Master of Science (Computer Games Technology) degree that is granted from the University of Abertay Dundee in Scotland. The program can be completed in 15 months and combines real-time videoconferencing, online meetings, labs and classroom work.

<http://mastersingaming.com>

St. Clair College

The college offers a two-year degree in Media, Art and Design (Journalism, Print and New Media). Some of the courses offered include Media Law, New Media Design and Podcast Journalism.

<http://www.stclaircollege.ca/programs/postsec/journalism>

Niagara College

The two-year New Media Web Design program is offered through the Media and Design department at Niagara College. Courses offered include a focus on web and digital design, 3D animation, software tools and project management.

http://www.niagaracollege.ca/programs/nmwd_0157/

Mohawk College

The School of Arts, Science and Communications, Graphic Design and Packaging Programs offers training for a two-year Graphic Design—Integrated Media Arts diploma. Students take courses in design and software applications which lead to work developing web and multimedia, e-zines, Internet animations and podcasts. The program also provides an optional co-operative education learning opportunity.

<http://www.mohawkcollege.ca/calendar/graphicsintmediaarts.html>

Durham College

Offered through the School of Media, Art and Design, Durham College offers diplomas in Animation—Digital Arts (two-year) and Digital Production (three-year), Game Development (three-year advanced diploma) and Multimedia Design (three-year advanced diploma).

- The Multimedia Design program provides training in various computer platforms and offers courses in computer hardware and software skills, multimedia presentations, digital production, digital graphics and website development.
- The Game Development program was developed with input from industry practitioners. Students gain skills in new technology and software and take courses in drawing, film, design and theory.
- The Animation—Digital Arts/Digital Production program is rooted in 3D animation and students take courses such as cinematic arts, performance and communication classes.

<http://mad.durhamcollege.ca>

Québec

Concordia

The Intermedia/Cyberarts Program (IMCA), offered through the Department of Studio Arts, combines studies in media arts, new technologies and interdisciplinary practices. Courses focus on different media formats: video production, digital media, interactive and electronic. Graduates receive their Bachelor of Fine Arts degree with a major in Intermedia/Cyberarts.

<http://imca.concordia.ca/>

University of Montreal

The university offers Multimedia courses offered through the Faculty of Science, Department of Computer Science. Courses include an introduction to Multimedia and programming, as well as courses in computer graphics, animation and editing.

http://www.etudes.umontreal.ca/index_fiche_prog/117576_desc.html

UQAM, Montreal

The Université du Québec à Montréal (UQAM) offers a Bachelor of Communication degree (Interactive Media). The program is offered through the Faculty of Communication, School of Media. Students wishing to enter this program must submit a digital media sample of their work in addition to their academic transcripts. Some of the courses offered in the program include training in interactive media, media technology and digital design.

<http://www.edm.uqam.ca/default.aspx?pld=161>

Saskatchewan

New Media campus

The New Media Campus trains students to enter the fields of 3D Animation / Game Design, Classical Animation and Multimedia. The campus is the first privately owned post-secondary school to have accreditation in high schools in the province of Saskatchewan.

Offered is a 10-month program in 3D Animation and Game Design Studies that prepares students for careers in film, animation and visual effects. Another program offered is a Multimedia course which is available in-class or online. Students gain hands-on experience creating multimedia presentations with Flash, Photoshop, Dreamweaver and other editing programs.

<http://www.newmediacampus.com/3d.htm>

Saskatchewan Institute of Applied Sciences and Technology (SIAST)

The Saskatchewan Institute of Applied Sciences and Technology (SIAST) offers a number of courses in-class and through their Continuing Education program.

The New Media Communications Diploma offers training in three streams: Dynamic Web Development, Interactive Media Production and Digital Graphic Design. Students receive an advanced certificate for each stream they successfully complete; those who obtain two of the three advanced certificates and are a New Media Communications Certificate Program graduate qualify to receive their diploma in New Media Communications. Courses are offered in digital and graphic design and 2D and 3D animation. Students learn to use different forms of software including Flash, Dreamweaver and various editing tools.

The New Media Communications Certificate offers courses in digital and graphic design and 2D and 3D animation. Students learn to use various software including Flash, Dreamweaver and other editing tools. The course is available in a classroom and online (10 courses).

http://www.siastr.sk.ca/programs_courses_descriptions/NMCCERT.shtml

SIAST offers an advanced certificate program in Interactive Media Production. The course is delivered online and is 30 weeks in length. It builds on skills developed in the New Media Communications Certificate Program and students learn how to write script in Flash, develop interactive CD-ROMs, author DVDs and develop material using content management systems and electronic learning environments.

The Website Design and Development program offers training using the 10 courses from the New Media Communications applied certificate program. Courses are taught in the classroom or online.

<http://www.siastr.sk.ca/programs/atoz.shtml#l>

University of Regina

The University of Regina's Faculty of Fine Arts offers a four-year Bachelor of Fine Arts—Film and Video Production degree. The degree, offered by the Media Production and Studies department, provides students with an introduction to the basics of new media production.

<http://www.uregina.ca/finearts/media/programs.html>

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Professional development

This section provides brief descriptions of organizations across Canada that provides or offers training, workshops, seminars or conferences for interactive media producers.

Alberta

Banff Centre

Offered through the Banff New Media Institute (BNMI), training courses available for interactive media producers include Interactive Screen: Sustain, Digital Content Creation Entrepreneurs Network (DC²EN) Incubation Program, as well as a number of work-study programs in interactive media.

http://www.banffcentre.ca/bnmi/programs/default_full.aspx

Ontario

Toronto Image Works Institute

The school offers individual courses as well as full-time diploma programs for Digital Publishing and a Digital Web Diploma Program, both of which are 14 weeks in length.

<http://www.tiwi.ca/index.html>

International Academy of Design and Technology

The school offers training in specialized areas of interactive media production. Programs available include Graphic Design for Print and Web (four terms), Computer Animation and VFX and Video Game Design and Development.

<http://www.iaod.com/programs.asp>

Canadian Film Centre

The CFC Media Lab (formerly Habitat New Media Lab) provides a training, research and production facility for emerging new media artists, content developers and practitioners. Offerings include mentorship, professional development in production and film and are included through the CFC Media Lab TELUS Interactive Art and Entertainment Program (IAEP), The Interactive Project Lab (<http://www.iplab.ca/iplab/en/activities/realization>) and the Interactive Narrative Feature Program (INFP).

http://www.cfccreates.com/what_we_do/cfc_media_lab/index.php

Québec

Institut National de L'image du Son (INIS)

The institute offers a five month training program for interactive media producers. The program addresses all aspects of the creation and production of Web environments, video games and interactive content.

<http://www.inis.qc.ca/2-medias.php>

National School of Interactive Entertainment (ENDI)

The National School of Interactive Entertainment (ENDI) is a new institution, founded in 2008. The program offers training for the video game industry in Québec. The program balances academic training and practical work experience.

http://www.endi.qc.ca/index_fr.phpHexagram

National Animation and Design Centre (NAD), Montreal

The centre offers training in 3D animation and digital design. Students can study 3D animation and video game design, as well as get a certificate in 3D Animation and Digital Design. NAD Centre offers a joint certificate with the Université du Québec à Chicoutimi (UQAC) and CEGEP de Jonquière. The program is 30 weeks long (450 hours).

Training is offered for 3D animation and visual effects for film and television, running for 48 weeks with an option for an eight- to twelve-week internship.

The Design and Digital Art for Video Games program runs for 48 weeks, with an optional 12- to 16-week internship. The program offers individual lab work where students create a 3D game environment, a cut-scene, a complete playable 3D game level integrated with Valve's Half Life 2 engine and training in specialized areas such as level design, environment/ textures, character modeling, and animation.

<http://www.nadcentre.com>

Appendix C—Verbatim responses

Figure 28 Q8 SKILLS THAT MAY BE REQUIRED IN FUTURE

Creative thinking skills
Creative skills. (2)
Creative skills and creative vision.
To be able to imagine creative solutions for projects – this process needs to be encouraged.
Being able to visualize creative opportunities.
Creative thinking, exploring problem solving and lateral thinking.
Being persistent (not stopping at the first solution).
Being able to think outside the box.
More creative skills will be needed.
Creativity skills and the ability to come up with new ideas.
Keeping up with new technologies
Keeping up with technology since technical skills are constantly changing.
Research on development tendency on the industry - What are the new developments to come and what directions are they taking for their results to reach for.
The ability to evaluate and implement new technology.
Self educate and keep up with technological changes.
Continuous training in new technologies.
Awareness of what's going on in the market place
One needs educational knowledge and an appreciation of digital media.
It covered everything but constant new stuff that keeps coming out. I need to anticipate what is to come.
Specialist in research study in general and production, emerging new projectiles technologies and their efficiency.
Business/financial/marketing skills
How to obtain grants and research funding.
The ability to identify new markets and think forward.
We need more knowledge about financing so we can be better skilled.
Training in multimedia for international markets
Financial management.
Business writing skills
Finances—I am from a small business so I have to learn more about balancing business costs.
How to market small businesses and manage them financially.
Understanding intellectual property rights
Intellectual property rights management.
Learning about intellectual property and rights.

Figure 28, continued...

Programming skills
Programming skills. (3)
Design skills
A strong sense of design.
Interactive design.
Architectural design
People / soft skills
Personality conflict among employees / need HR help between employers and employees.
Soft skills - People need to learn to apply real world applications to business.
A high degree of optimism and goal-orientation.
More social skills are going to be needed.
Interpersonal communication skills and computers
Accountability and taking ownership.
Other
Strategic planning skills.
Art direction concept development.
Story boarding.
Understanding terminology principals.
Project management.
Technical skills - They get out of school and know nothing and they need better work ethic.
None
None. (28)
No. (5)
No, you covered everything. (3).
Not applicable.
No everything was touched on already.
No, the list is very thorough.
No, I think everything was covered.
Nothing to add.
No—I think you have asked about everything.
No I can't think of any
That covered everything.

Figure 29 Q14 SKILLS LEARNED AT PROFESSIONAL DEVELOPMENT CONFERENCES OR WORKSHOPS

Business/financial/marketing skills
Business management and marketing strategy. (2)
Business models, industry trends, game development and graphic programming.
Market business online.
Legal knowledge, knowledge of finance support, marketing and communication.
Product and service knowledge.
Trade missions and modelling simulations.
Search engine marketing.
Financial investment, investment strategy, and micro management.
Client relationship and management of business strategy.
Business development.
Business strategy marketing.
Keeping up with new technologies/networking skills
Networking skills / opportunities. (2)
I went to a general workshop that was about the industry, and there weren't any new skills I learned.
Social networking and the state of the industry - updating on current trends.
I improved on networking opportunities.
I didn't learn a skill set because it was more of gathering information on digital media.
Technology and communication, as well as advanced study on new products in technology.
It was a conference on networking.
I learned no skills because the conference was on networking.
Just a refresh crash course.
The conference was about general industry knowledge. I didn't learn any new skills. I thought the conference wasn't very good.
Keeping up with new computer media.
It was an overview of how comprehensive one needs to be when carrying out a project.
Leadership skills
Leadership, developing time management, marketing management and digital concepts.
Leadership and the emergence of New Media.
Project management
Project management.
Project management, web development and management in production teamwork.
Project management and developing outsource pipeline.

Figure 29, continued...

Production skills

Production workshop - marketing level.

Production of interactive design, marketing, and financing.

New media production (podcasting).

New production methods.

Learning interactive media software

3D integration.

Mobile web.

Flash development.

The development of portals and online communities.

The development of Internet video.

The negotiation and presentation of video games.

Management, social media, online marketing and flash development.

Soft skills

Motivation.

Story telling skills

Interactive story telling.

Story telling.

Figure 30 Q17 GREATEST TRAINING NEEDS NOW OR IN THE FORSEEABLE FUTURE

Website design/programming skills
Script writing.
Programming, 3D modelling, and animation for games.
Programming - being able to put everything together and work on different platforms.
Technical capabilities—programming and technological advances.
Online software tutorials.
Better understanding of web programming.
Mash designer.
Software proficiencies and key design.
Understanding the process of programming, cold fusion, HTML, knowing the limitations of what you can get out of digital production and understanding timelines.
Peer web development.
Pre-press production and website developing.
Learning the fundamentals with program developing because after getting out of school, we still need to completely train our new employees.
We need people with quality skills in designing, coding and programming. They need to be able to add something to the team. We have a lot of quantity, we need quality staff.
Current web building in different languages.
More technical development.
Financial/business/marketing skills
Business approach presentation.
Understanding the start-up evaluation on the business side.
Resource acquisition.
Marketing web products and becoming technologically competent with tools such as the iPhone.
Being able to access interprovincial and international markets for exporting new products and services.
Business development and project management.
Search engine marketing.
How to go get financial support/need formation.
Accounting (legal).
Project development, building and marketing products on our own with no funding.
Selling our company project to people and being creative.
Creative thinking skills
Finding the right people with creative skills and problem solving skills.
Creativity, software knowledge like Dreamweaver, Flash and Final Cut Pro.
More creativity is needed.
Creative awareness, being able to replicate or duplicate something and keeping up-to-date on advanced programming skills.
Software skills
Everyone needs to be skilled in current program offerings like Flash. We are constantly training in our day-to-day work.
Flash development and greater people skills because our staff needs to know how to deal with clients.

Figure 30, continued...

Video game design skills
Game developers.
Video game development and flash development.
Learn about game development systems, digital editing and better ways to implement website interactive media.
International Game Developer Conference.
Interpersonal / soft skills
Leadership training in our company.
Finding suitable candidates. (Respondent wouldn't elaborate on this answer.)
Mentor program, developing basic skills from school and leadership team building.
Our biggest challenge is finding the right people to do the job.
Entering the business environment after school. They need to hit the ground running. Social skills will be needed as well.
People skills – newly graduated employees need to learn how to interact with clients and their budgets.
Upgrading skills / keeping up with new technologies
Keep an update on self teaching manner.
To upgrade and gain more knowledge on new and future technologies and time/project management.
We are searching the area for independent resources to better understand the changes in interactive media.
Keeping up with new technology.
Implementing tools and using them to our advantage, making sense of business applications and social networking applications and the associated issues (privacy and intellectual rights).
To keep up-to-date with the new technology software allowing it to grow furthermore within the business.
Regularly update skills.
Keeping up-to-date with the latest technology, constantly researching and using more online resources.
Integrating new technology - workflow.
Just keeping up-to-date on all the technological changes.
Keeping up-to-date on all software.
Internet research for new technologies.
Using interactive media tools
Field animation and character story development.
Learning how to use blogs and social media.
Access to more DVD designs.
I would like to upgrade my editing skills. I would also like to learn how to self-distribute and download my DVDs. I also would like to learn how to make my website secure.
Interactive Arts.
Communication skills
Upgrade English speaking abilities.
I need a greater knowledge of excel and communications

Figure 30, continued...

Project management skills

Project management, resource management and business strategy planning.

Project management—scheduling.

Upgrade project management skills including human resource management topics.

Project management; there are very complex, high level technical requirements for serious gaming such as understanding and configuring game engine programming.

Mobile application skills

Mobile computing and SEO—Search Engine Optimization.

Mobile web, cross media application and social media.

Other

Our training needs are more on the art side.

None

I'm not sure. (2)

Depends on the contract requirement.
